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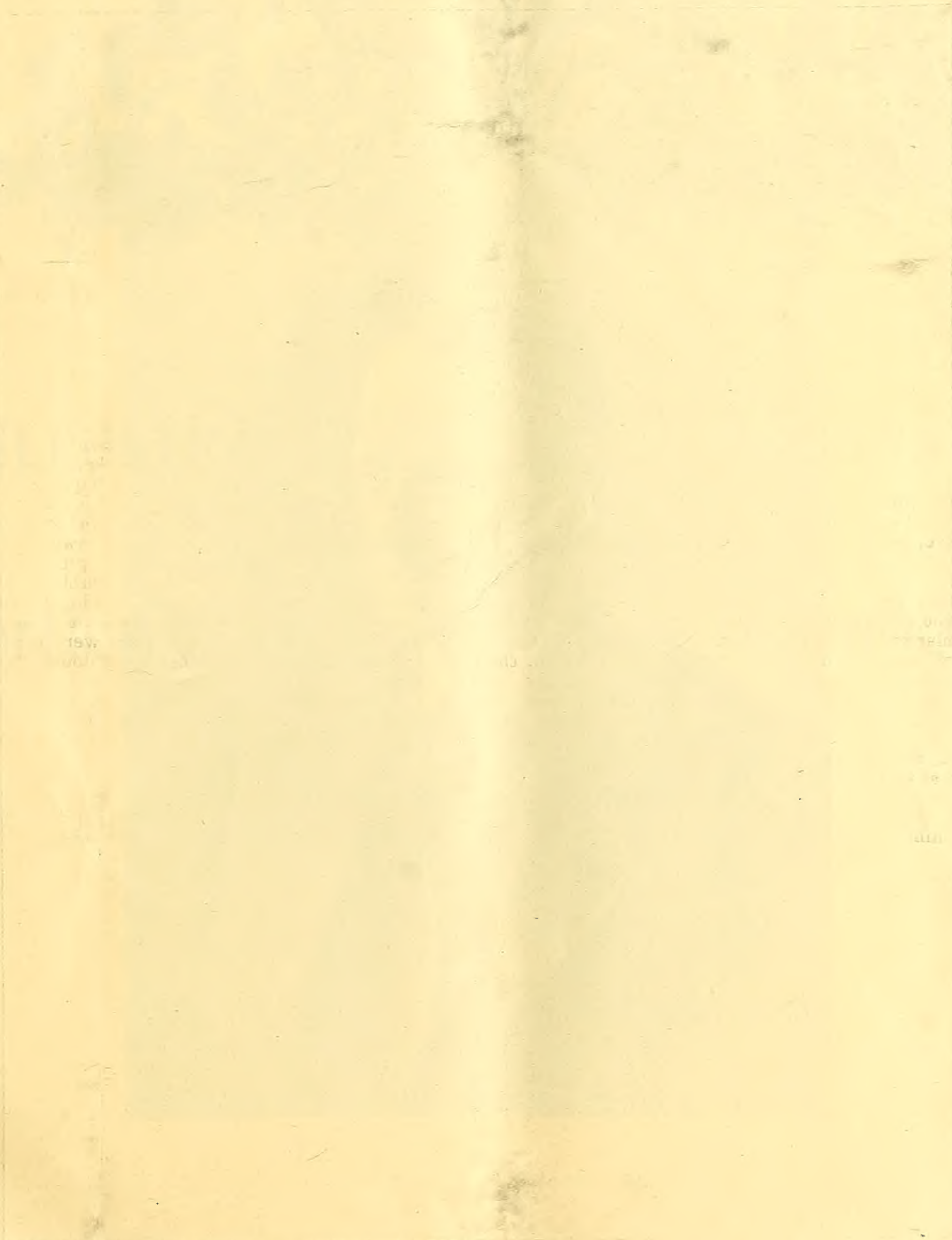
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— TO —

SIR JOHN T. D. LLEWELYN,
BART., F.R.S.,

THE SIXTY-SEVENTH VOLUME OF "THE GARDEN"

Is dedicated.

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THE GARDEN

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JANUARY 7, 1905.

THE NEW YEAR.

ONCE again we have the privilege of wishing our readers a Happy New Year, and such a greeting brings its own train of thought. January is a month of work and anticipation, and the true gardener should be busy thinking out schemes for the future in whatever department of the garden these schemes are to be realised.

That "the old order changeth, giving place to the new," has always been true, but it is now, perhaps, truer than ever before. The life of the nation has changed, and it necessarily follows that other things must change also. In no direction has this difference been so marked as in the world of literature. General literature was first influenced, and now the classics of our own and other languages are within the reach of quite moderate means. Technical literature is following the same path. During recent years gardening has perhaps made greater progress than any other of the useful arts, and a love for it has certainly deepened in the public mind during the last decade to an extent never before known.

Recognising the importance of this great change, *THE GARDEN*, which for more than thirty years has endeavoured to encourage the highest and best forms of gardening, to overcome deep-rooted conservatism, and to turn misdirected energy into more useful and pleasurable channels, comes to-day within reach of all who have any interest in a profitable and health-giving profession or recreation.

The sound teaching of *THE GARDEN* is traditional, and in this new departure the reputation which has been achieved will be steadfastly maintained and usefully developed. It is the wish of those responsible for the management of this journal to appeal to all classes of gardeners, the amateur as well as the professional, and in doing so the advice given in its pages should bring twofold benefit. The professional gardener is as willing to profit by the experience of the enthusiastic amateur, as the amateur is from those who follow gardening as a life calling. Both work in harmony for the advancement of an important industry.

It is unnecessary to write further, but we may well direct attention to the notice on the front advertisement page, on which the policy that we intend to pursue is clearly expressed.

THE BRITISH GARDENERS' ASSOCIATION.

THE movement initiated nearly a year ago to establish an association of professional gardeners for the United Kingdom has, we are pleased to learn, made good progress. A head or central office will shortly be opened in London, where a paid secretary will officiate, and branches are being established in provincial towns and districts, so that before long the association will be busily occupied in promoting the interests of those for whose benefit it has been started. We have felt it our duty to encourage this movement from a sincere belief in its capacity for good. Although it appeals directly to every gardener whose conditions of employment it hopes to regulate and, where needed, to improve, it also appeals no less forcibly to employers, who are too often improperly served in consequence of the absence of any organisation to control the labour market of gardeners. There must be a winnowing of the chaff from the corn. The operations of the British Gardeners' Association are intended to prevent the incompetent, or, otherwise unworthy, from crowding out men of ability and worth.

We believe that employers generally will look upon this movement as being friendly to their interests, and not as one the object of which is to better the condition of the gardener at their expense. "Cheap and nasty" is true of labour as of material. A higher rate of pay for gardeners would tend to raise the standard of their skill and capacity. It would stimulate the workers and attract youths of better quality to the calling. There are many gardens in this country which could easily be managed at less cost than at present if they were better staffed. The waste of material, labour, and effort that may be seen in some gardens is so deplorable that one is moved to agree with the proprietor who complains that his garden costs too much already. There is certainly great room for improvement in this direction.

We are, therefore, pleased to learn that some employers, among them the President of the Board of Agriculture, the Earl of Onslow, welcome the British Gardeners' Association as likely to prove a real help rather than a mischievous influence in horticulture.

Whether gardeners generally are possessed of that spirit of citizenship, that disposition to co-operate, which have done so much for workers in other industries, will be revealed by the support they give to this association. Some of them object to it because it does not promise to do them much good—a selfish attitude, quite unworthy of a Britisher. The strong should help the weak. Others say they will wait and see what comes of it, which shows a lamentable ignorance of the meaning of co-operation. There are also those who refuse their support because they fear that the association will disturb the pleasant relations

now existing between some employers and their garden staff. If all gardeners were so happily situated there would be little need of an association to look after their interests.

For our part, we have no hesitation in heartily commending to all, employers as well as employed, a movement which, happily conceived, is being conducted in a spirit of good nature and with the best intentions. As the promoters say, "Nothing will be attempted that is inconsistent with the rights either of employer or employed, or which will not commend itself to all who have the welfare of horticulture at heart." It is in this spirit that we wish the association God-speed in its efforts to raise the status of the professional gardener, by insisting that he shall be competent and worthy, and by securing for him proper recognition of his services and fair conditions of employment; and also in its no less commendable desire to secure for employers duly qualified, trustworthy men. Thus horticulture, one of the most important of British industries, cannot fail to be benefited, and will, we earnestly hope, cease to be that "dumping ground for duffers" which it has been hitherto.

RIVIERA NOTES.

BULBS AND THE DROUGHT.

AS the year draws to a close the severity of the summer heat and drought is made still more apparent by the non-appearance of winter-flowering bulbs which usually are now either in flower or should soon be open. The other day, seeing that none of the early kinds of white and yellow Tazetta Narcissus were above ground in their usual quarters, we dug down to see what had happened, and to our dismay we found nothing but rows and rows of dried-up husks of what had been splendid bulbs last spring. The exceptional heat and drought had cooked them in the ground, and not one bulb remains in that part of the garden. The gardener might have saved them by merely placing a few wheelbarrows of rubbish over them, as was done for things known to suffer from heat, but the native Tazettas are supposed to endure all vicissitudes, hence this loss. Anemones, on the contrary, have not suffered at all; even on the driest and hottest banks they are re-appearing, and where more moisture has reached them they are now flowering. I am not surprised to find all the northern Trumpet Narcissus are killed, except in a few extra moist and shady corners, but that the native Tazettas should have been killed shows the exceptional heat endured here. As a consequence, perhaps, of this summer the little-known shrub

ABERIA CAFFRA is fruiting in several gardens. When thoroughly soft and ripe its

pretty yellow fruits, which hang like fairy globes on very slender stems among the shining evergreen leaves and sharp protecting thorns, are quite a pleasant addition to the dessert table. This shrub would also serve as a very efficient low hedge, and altogether is a desirable shrub for gardens on this coast. Another new comer this season is a Gourd, whose botanic name I have not yet been able to ascertain, but which goes by the name of Chaillotte. It is a perennial I am assured, and climbs very prettily up the Olives, bearing most curious rugged fruit, with spines at intervals on its green exterior. Like the Aberia, its fruit stalks are so slender as to be almost invisible to the casual observer, which makes a decidedly curious effect in the tree. It must be peeled before eating when cooked, and practically may be called a winter Vegetable Marrow, as it seems to last for some months after the "Courges," hitherto grown here, are finished and done for.

ILICUM ANISATUM, that beautiful and ever-flowering tall evergreen shrub I have often mentioned, is one of the sufferers from the summer drought, and with others I have to mourn its loss where exposed to sun and drought; in the moistest and shadiest situations only it has survived, and is, as ever, crowned with its starry flowers. Surely it would be well worth planting in Cornish and southern gardens, where the conditions would generally suit it so well, shade and moisture being easily attainable there.

BIGNONIA VENUSTA, with its coppery orange clusters of flowers, is in much beauty this month of December, and *Bignonia Buccinatoria*, which went for many years under the name of "Cherere" (its native name), is also to be mentioned as especially fine this dry year. Gardeners have an evil habit of clipping it in autumn and so destroying nearly all its flowers; but when scientifically thinned out, or judiciously left alone, it is, and has been, a veritable curtain of rose-crimson trumpets. The few wise men who did not hesitate to plan and propagate the well-known white Rose Frau Karl Druschki are reaping a golden harvest from its pure white flower-buds. It seems as if this Rose would prove of the very greatest use as a winter bloomer.

RANUNCULUS are now much grown for winter cut flowers, as they come in before the Anemone when started at the end of August. This year they are especially good, as they were ripened so early and so thoroughly, and in consequence the crop of late autumn flowers is better than it usually is. A very dwarf and alpine variety of

VIOLA CORNUTA is one of the prettiest carpeting plants for winter bedding. So far I have not seen it in England, where perhaps it might grow too gross and leafy. No bedding *Viola* can give so compact a mass of flower, and its blue Periwinkle shade of colour contrasts well with the pink and white Daisies so much used in the public gardens where hardy plants are needed; its stature is that of the blue *Lobelia*, which it replaces. It should be worth a trial in English country gardens, where a new hardy plant is always welcome. It is perennial, but the summer heat is too much for it here, so it is best from seed each year, in this climate at any rate.

Nice, Dec. 18. EDWARD H. WOODALL.

New Plants for Illustration.—We are very anxious to illustrate in colour and by photography new and rare plants, fruits and flowers, and shall be grateful to receive specimens from our readers. They must be packed with great care, and reach this office early in the week.

PRIZES FOR GARDENERS.

TO ENCOURAGE A GREATER KNOWLEDGE
OF TREES AND SHRUBS.

WE have received a letter from the Hon. Vicary Gibbs, whose excellent lecture on the winter effect of some trees and shrubs will be fresh in the memory of those who heard it at a recent meeting of the Royal Horticultural Society, to the effect that he desires to offer a prize of two guineas for the best answers to the following questions. All gardeners in private employ are allowed to compete. It is expected that head gardeners where more than five are kept will not enter this competition. Mr. Gibbs's desire is to encourage an interest in trees and shrubs amongst young gardeners, and we hope this desire will be gratified.

QUESTIONS.

- I.—Mention twelve effective shrubs flowering between September 1 and April 1.
- II.—Mention a class of deciduous trees that bears heavy or frequent pruning very badly, and a class of conifer that bears it particularly well.
- III.—Mention a *Spiraea* which has no external resemblance to other plants of that class, but rather simulates a Spurge.
- IV.—If you had to plant six large deciduous masses of cheap, hardy, vigorous plants, indifferent as to soil, &c., suitable for cutting down every spring so as to produce a good colour effect in winter, what would you select?
- V.—Mention a common deciduous tree and a shrub of trailing habit of which the popular names suggest that they are of a completely different order to that to which they belong.
- VI.—Mention six dioecious trees or shrubs.
- VII.—Mention four hardy deciduous conifers.
- VIII.—What deciduous trees stand wind best, and which worst?
- IX.—What deciduous trees are most injurious and what least so to undercover?
- X.—Mention twelve flowering shrubs other than *Syringas* suitable for planting in a large town, confining the answer to species, and not giving varieties.
- XI.—Mention twelve flowering trees and shrubs with blue, purple, or violet flowers.
- XII.—Write down in order, according to the safety with which they would bear removal, the following three sets of plants, assuming them to have been an equally long time undisturbed: (1) Oaks, Birch, Horse Chestnut, and Lime; (2) *Cupressus lawsoniana*, *Pinus austriaca*, *Juniperus*, *Quercus Ilex*; (3) *Cotoneaster microphyllus*, *Laurustinus*, *Aucuba*, and *Holly*.
- XIII.—If a specimen conifer were to lose the leader, through wind or other accident, how would you set about to repair the damage?

Answers should be sent to the Editor of THE GARDEN, 3, Southampton Street, Strand, London, and marked "Competition." These will be forwarded to Mr. Gibbs. The competition remains open until the end of the month.

We think so highly of the suggestion made by Mr. Vicary Gibbs, and the great practical value of the questions he has framed, that we have decided to add Two Guineas to the first prize, to give a second prize of Two Guineas, a third of One Guinea, and a fourth of Half-a-Guinea, and to institute monthly competitions dealing with various other phases of gardening. With the first issue of each month we shall offer similar prizes to those above; the scheme of questions is especially intended for young gardeners. The questions will be selected so that the answers, which will be published in THE GARDEN, may be of real value to all garden lovers. The winning replies, it is safe to assume, will contain the result of many years' experience, plainly put in a few words, and they cannot fail to impart much useful information to all readers of THE GARDEN. We shall make a point of keeping the questions seasonable, so that the replies will be particularly helpful at the moment.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand.

A BEAUTIFUL FORM OF IRIS STYLOSA.

Mr. Caparne sends a beautiful large-flowered form of *I. stylosa*, of a very soft blue-purple, richer than the type, and exquisitely veined on the inner surface of the falls. The growth is very strong and leafy, but the following note from Mr. Caparne tells its own tale: "I enclose a few blooms of a large-flowered form of *Iris stylosa*, which differs from the type by the plant being more robust in every way, the time of blooming being much earlier—i.e., through November and December here, whilst the type which is grown by it is seldom in bloom before Christmas, and gives its flowers mostly in March. The colour, too, is deeper and richer, and a conspicuous arrow-head mark adorns the centre of the fall or lower petal. The style which forms the stem of the flower is also much larger, from 12 inches to 16 inches instead of from 8 inches to 10 inches. The best results are obtained when it can be grown in a single line, as in an edging in a sunny, sheltered position when it is most free blooming, but it is so particular about the amount of sun and air it gets, as with most Irises, that if planted in a square mass the outside plants only give a quantity of bloom. A watchful eye has to be kept for slugs and earwigs, they will spoil the whole bed or border as fast as the blooms appear. Lime water and picking for the slugs and small snails is perhaps the best remedy. The growth of the flower and style is very rapid, being several inches in a few

hours; it is naturally very tender and attracts these pests. The plants should be dug up, pulled to pieces, and replanted in new ground every third year, as with most Irises, this being preferable to manure. Time for moving is in spring after blooming."

GOOD MIDWINTER ORCHIDS.

We have received flowers of several Orchids from "H. H. W.," Shrewsbury, among which are *Odontoglossum sanderianum*. This is a distinct and pretty species that fills the room with its delicate perfume. The blossoms are rather starry, as it is termed, but are no less beautiful on that account. The contour of the flowers is like that of *O. naevium*, but the colour is pale yellow on the sepals and petals, the lip white, the whole flower plentifully spotted with reddish brown. It is quite a cool house species, thriving well in a small suspended pan where it gets the full benefit of the air currents. It must be kept moist at the root all the year round and plentifully sprinkled overhead when the weather is bright. It is a native of New Grenada and was introduced in 1881. *Oncidium cavendishianum* is a superb winter-flowering species that should be represented in all collections. The blossoms are produced on bold branching scapes from the base of the last formed leaves, this kind bearing no pseudo-bulb. Each flower, if the variety is good, measures nearly $1\frac{1}{2}$ inches across. The sepals and petals are about equal, of a light yellow shade, spotted with chestnut red, the large front lobe of the lip being clear bright yellow. It is a native of Guatemala, and one of the easiest in the genus to cultivate. It does well at the cool end of the Cattleya house in a pot with equal parts of peat and Moss over good drainage.

THE LILIES.

(Continued.)

LILIIUM OCHROLEUCUM (Hort.).—See sulphureum.

L. odorum (Planchon).—See japonicum colchesterense.

L. pardalinum (Kellogg).—The Panther Lily. A very variable Lily, widely spread in Western America and an old inhabitant of our gardens, thriving in any damp, cool situation. The bulbs are white, thick, scaly, and rounded near the insertion of the stems, variable in size and shape, the stems 3 feet to 6 feet high, very slender, hollow, and scarcely at all rooted below. The leaves are scattered above, whorled below, coloured a deep bluish green, broadly lance-shaped, and lax. The flowers appear in a loose umbel of six to ten, occasionally arranged tier above tier in whorls of four to five, the foot-stalks long and slender, nodding at the tops, the petals much recurved, coloured brilliant orange, spotted dark brown in the lower half, tipped with bright reddish scarlet. Each flower is 5 inches across when fully reflexed. A Lily common in cultivation. Flowers in July.

Var. angustifolium (Hort.).—The narrow-leaved Panther Lily. A slender-growing variety of rich orange colouring, long known as *L. Roetzlii*. An excellent marsh plant. The bulbs are like those of a small *L. pardalinum*, the stems 2 feet to 3 feet high, very slender, the leaves lax, narrowly lance-shaped, glaucous green, whorled below, and 3 inches to 4 inches long. The flowers are in an umbel, and borne on long foot-stalks, coloured orange, yellowish near the throat, spotted with a few large dots of crimson-maroon. The expanded petals are 3 inches across. Rare in cultivation. Flowers in July, and inhabits the Rocky Mountains of Utah and the Santa Cruz Mountains of California. A very dainty Lily, apparently distinct from the rest of the pardalinums.

Var. Bourgaei (Baker) has bulbs, stems, and leaves as in pardalinum. The tips of the broad petals are heavily marked with crimson, and the flowers are spotted dark maroon.

Var. californicum (Lindley).—A dwarfed form, of tufted habit, with more highly coloured flowers. It also has masses of freely-branching rhizomes emitting roots from all surfaces. The stems are 3 feet to 6 feet high, numerous, tinted purple below, and the flowers, three to six, are deep orange red, heavily marked brilliant scarlet at the tips, the colouring being sharply defined, taking the form of arrow-heads. The spots are black and numerous, and the size of those of the type. Common in cultivation. Flowers in July. It is not so good a garden Lily as the type, and the bulbs split up into numerous small growths, each incapable of bearing many flowers. The colouring, however, is magnificent.

Var. Michauxi resembles californicum very closely. The centre of the flower is yellow,



VALERIANA SAMBUCIFOLIA AT K.W.

(A wild plant under cultivation.)

and the reflexing tips vermilion. *Lilium Michauxi* (Laur.) has been described as synonymous with superbum, but the *L. Michauxi* of gardens is nothing but a colour variation of *L. pardalinum californicum*.

Var. minor is a dainty form from the higher altitudes of the Sierra Nevadas, and has small but numerous flowers. The stems are 3 feet to 5 feet high and slender. The flowers are ten to twenty or more in a verticillate spike, each 2 inches across, and the colour is a clear pale buff, densely dotted with carmine, the dots often aggregating into rings or lines. The petal tips reflex fully to hide the tube, and are stained with crimson, the richness of colouring depending upon warm sunshine for full development. Anthers pale orange. Common in cultivation. Flowers in July and August.

Var. occidentale.—See californicum.

Var. pallidifolium.—See puberulum.

G. B. MALLET.

(To be continued.)

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

January 9.—Committee meeting of the United Horticultural Provident Society.

January 11.—Meeting of the Sheffield Chrysanthemum Society.

January 13.—Annual Social gathering of the Kew Gardeners.

January 14.—Annual Dinner of the French Horticultural Society of London at the Café Royal, M. Philippe de Vilmoren in the chair.

January 17.—Meeting of the Sevenoaks and the Redhill and Reigate Gardeners' Societies.

January 19.—Annual meeting and Election of Pensioners of the Gardeners' Royal Benevolent Institution, Mr. E. Sherwood in the chair.

January 24.—Royal Horticultural Society's meeting.

January 27.—Meeting of the Lee and Blackheath Gardeners' Society.

"The Garden" Calendar.—We are greatly indebted to those secretaries of horticultural societies throughout the country who have so kindly given us the dates of their respective shows and meetings to be held in 1905. Without their willing co-operation we should have been unable to chronicle so many events of gardening interest for this year in the calendar given with this issue.

A beautiful British plant.—Of the taller Valerians, *Valeriana sambucifolia* is the most effective for the border and the wild garden, where the soil is moist enough. It blooms in the late summer and lasts in flower for a considerable time. It is a native of this country, and is often met with by the sides of streams, growing in damp places. Under cultivation, however, it is greatly improved and makes a bushy plant about 4 feet high, bearing cloud-like masses of small light purple-coloured flowers. It is closely allied to the Cat's Valerian (*V. officinalis*), even if it is not a form of it. The distinction between the two lies in the number of pairs of leaflets possessed by the entire leaves, *V. sambucifolia* having from four to five pairs, while *V. officinalis* has from six to ten on each leaf. The Capon's-tail Grass (*V. pyrenaica*) is also a strong-growing species with large leaves, suitable for the rougher parts of the rock garden. The most generally-grown member of this family is the golden-leaved variety of *V. Phu*, which is a very effective plant in early spring. It forms neat, compact tufts of golden-coloured foliage, but the flowers are inconspicuous.—W. I.

Linnean Society of London.—At the general meeting, held on the 15th ult., Professor W. A. Herdman, F.R.S., president, in the chair, the following ladies and gentlemen were elected Fellows: Her Grace Mary du Caurroy Russell, Duchess of Bedford, Miss Margaret Benson, D.Sc. Lond., Mr. Samuel Edward Chandler, B.Sc., Mrs. Catherine Crisp, Miss Alice Laura Embleton, B.Sc., Mrs. Grace Frankland, F.R.M.S., Mrs. Maria Ogilvie-Gordon, Ph.D., Munich, D.Sc. Lond., Miss Gulielma Lister, Miss Ethel Sargent, Mr. Arthur Everett Shipley, M.A., F.R.S., Miss Sarah Marianne Silver, Mrs. Constance Percy Sladen, Miss Annie Lorrain Smith, Mrs. Mary Anne Stebbing, Miss Emma Louisa Turner, Mr. William James Tutchet, Mrs. Lilian Jane Veley, and Miss Ellen Willmott.

Prizes for new plants.—At the international show to be held in Edinburgh on September 13, 14, and 15, 1905, Messrs. William Bull and Sons will offer, through the Royal Caledonian Horticultural Society, a special prize for new plants, viz., a silver cup value 10 guineas and £5 cash, to be awarded to the exhibitor of the best six new plants sent out by them. The six plants must be six species or varieties, but each may be composed of one or more individual plants, if grouped in one pot or pan. Full particulars may be had from William Bull and Sons, King's Road, Chelsea, S.W.

Greenhouse Roses in winter.—It is very pleasant to be able to cut a few good Roses at Christmas time. Some years this can be done

from outdoor plants. Only recently we had the unusual sight of snow-covered beds of monthly Roses in bloom, from which handfuls could have been gathered. To obtain Roses in bloom in December and January in a greenhouse in which frost is just kept out by artificial means, plants should be prepared in late summer. All the Roses of the Mme. Falcot, G. Nabonnand, and Papa Gontier type are the best to employ. Procure the plants during the summer, or, better still, pot some up into 8-inch pots the previous autumn. Such plants will flower in June and July if grown outdoors, the pots being plunged in ashes. After this first blossoming, all successional flower-buds are pinched off until September. New growths will then push forth, and will provide buds which will unfold during November and December if kept in a greenhouse from which frost is excluded. After flowering thus, the plants are rested by withholding water for about two weeks; they are then pruned, and are ready for placing in a warm greenhouse, and will yield another crop of flowers in about twelve weeks from the time of pruning.

The Ancrum Road Gardens, Dundee.—A strenuous effort is being made to avert the threatened destruction of the Ancrum Road Gardens, Dundee, in view of the difficulty of securing suitable ground, and the loss to the association and the individual allotment holders. A meeting of the men was held in the gardens recently, and an animated discussion took place. It was resolved to use every effort to prevent the loss of the gardens. A deputation from the holders also waited upon the Works Committee of the City Council, and ultimately it was arranged that the new road should be stopped in the meantime at the gardens, and a conference held with the agents of the trustees to try and arrange for a reasonable notice being given. We have since heard that the negotiations have proved unsuccessful.

"The Kew Guild Journal."—This annual publication, which is greatly looked forward to by all who have studied and worked in the Royal Gardens, Kew, seems to increase in interest every year. The editor could not possibly have filled the issue for 1904 with more readable matter. The letters from old Kew men who are now widely scattered throughout the world have the charm that always clings to notes from far-off countries. Mr. Tannock writes of snow-capped mountains and fruit trees in blossom in the valleys of British Columbia, and that the most striking features of the gardens of Honolulu, in the Sandwich Islands, were ponds of *Pontederia crispata* in full flower. The notes sent from Uganda by Mr. E. Brown about the natives and the vegetation of that country are most interesting. Of the natives of Buganda Mr. Brown writes: "If we put the material condition of these natives side by side with that of thousands of Englishmen the comparison is greatly in favour of the Buganda. They never feel the want of food or clothes, and never suffer from cold. Their chief food is Bananas, which they can get by growing, or if they have not their own plantation they can buy a bunch for 1d." The letter written by Mr. Wilson at a point 900 miles up the Yangtze River from Ichang, says: "All the higher mountains are clad with *Rhododendrons*, and many of them are extremely handsome. I believe the *Rhododendrons* of China equal, perhaps excel, those of the Himalaya in beauty and variety, and should be much harder since they come from similar altitudes in latitudes many degrees further north. Around Tachien-lu they form dense, impenetrable thickets at 10,000 feet to 13,000 feet altitude." There are letters from Egypt, South Africa, China, America, West Indies, British East Africa, and other countries, all of which give vivid accounts of the native flora and sylvia, bringing before one the grandeur, the beauties, and the mysteries of distant lands, some half civilised and hardly explored. The journal for 1904 is dedicated to Mr. N. E. Brown, A.L.S., assistant in the Kew Herbarium since 1873, whose portrait forms the frontispiece. Mr. Brown is a recognised authority on Cacti, Aroids, and Cape plants generally. He is the author of several scientific works. Old Kew men

will be glad to notice that the various institutions connected with the Royal Gardens, e.g., the British Botany Club, the Debating Society, and the Cricket Club, are all in a flourishing state.

Damage by fog.—The recent fog has done a great amount of damage in the plant houses in Kew Gardens, especially in the greenhouse and Orchid houses. In some cases a year's labour in growing plants has been rendered fruitless. *Moschosma riparium* is one of the greatest sufferers. Little remains but a few bare stems on a batch of plants that were just coming into flower. *Reinwardtia trigyna* and *tetragyna* are almost as bad. The flowers of *Coleus thrysoides* have all fallen off, and the leaves present the appearance of having been burnt by an excessive dose of fumigation. *Impatiens Oliveri*, *I. Sultani*, *Jacobinia pauciflora*, *J. ghesbreghtiana*, *Eupatorium petiolare*, *E. anthinum*, *Salvia splendens*, and many *Begonias* have all suffered severely. Many other plants have no doubt suffered, but the injury is not so apparent. When visited with fogs such as this, it leads one to look round and see what plants will withstand fog. Amongst these perhaps the most remarkable are *Begonia Gloire de Lorraine* and its varieties. Most of the *Begonias* have suffered badly, but these have come through apparently unharmed. *Peristrophe speciosa* is another plant one would not have expected to withstand the fog so well. The deposit on the glass gives the appearance of slate roofed rather than glass houses. Washing off the deposit left by the previous fog had scarcely been completed, and now it will all have to be done over again.

Visitors to Kew.—During the year 1903 the number of persons who visited the gardens was 1,352,548. The Sunday visitors numbered 568,726, the week-day ones 783,822. The total is the highest recorded during the last seven years, with the exception of 1901, when there were 1,460,169 visitors. The greatest number on any one day was 73,566 (June 1), and the smallest 116 (June 19). It is curious that the two extremes should have occurred so close together, and probably the first time the minimum number has occurred in June. During the decade ending December 31, 1903, the number of ordinary visitors to the gardens reached close upon thirteen and a quarter millions. Besides these the gardens have been visited annually by thousands of botanists, gardeners, artists, &c., before the time of public opening.

A garden in the shade.—A garden in the shade is very often not a garden at all. How few understand the garden possibilities of shade, how many and how delightful are the plants that will grow therein, and how innumerable are the advantages it offers to the gardener in providing a succession of even those flowers that love the sunlight! It is but rarely that these conditions and possibilities are utilised to their full extent, or, indeed, utilised at all, and I think this is owing chiefly to the fact that many are unaware such possibilities exist. I form an opinion from the aspect of the shaded portion of the majority of gardens it has been my privilege to visit, where Laurels, Aucubas, Mahonias, and a few other evergreens, more or less attractive it may be, but still excessively monotonous, are the chief components of the borders from one year to another. My object in writing is not to suggest that one may have the garden in the shade of the same brilliant splendour, varied hues, and profusion of blossoms as the more advantageously situated portion, yet I think for originality and distinctness, soft and pleasing colours, and lasting flowers, the shaded garden has a charm all its own. Doubtless most of the neglect and ignorance concerning the garden capabilities of shade are due to the fact that one can usually obtain quite sufficient enjoyment from that part of the garden more favourably placed, a greater variety of flowers of more brilliant colouring, and an effect altogether more splendid. Those, however, who are thus content miss much. There are some flowers whose colours are never more beautiful than in the deep shade—in fact, unless seen in the shade are never seen at their best—such, for instance, as whites, pinks, pale blues, and mauves. Flowers grown in

the shade are more lasting when cut than are those gathered from a border fully exposed to the sun; they are in some cases also of a deeper hue. —Y. Z.

What to plant beneath trees.—How often do we see bare and unsightly spaces beneath large trees that might easily be made attractive, and in some cases really beautiful. It is useless to expect to get satisfactory results from grass, other things must be used. One of the best plants for the purpose is the small flowered *Periwinkle*, *Vinca minor*. With its pretty dark green leaves upon trailing shoots and pleasing blue flowers it is a delightful plant even for a good position in the garden, but it will flourish well beneath the shade of a large tree, and bring brightness and beauty in that usually desolate spot. A *Euonymus* with variegated leaves called *E. radicans* variegata also makes an admirable carpet of grey and green for the ground around a tree trunk. It grows freely, and only needs to be well watered during the hot weather and to have the shoots pegged down in the soil. Ivy is so common that it often escapes notice as a valuable covering for deeply shaded ground, yet it is one of the very best plants to put there. Even in the dull, foggy atmosphere of the London parks it is made use of to hide the bare soil beneath large Elms and Limes, and despite the heavy shade when the trees are in full leaf, it forms a charming bed of greenery that is much appreciated by visitors during winter when branches are bare. The *St. John's Wort* (*Hypericum*) may also be mentioned, for it would transform many a cheerless garden corner into one of pleasant greenery and yellow flowers. The common *Woodruff*, too, is not to be despised. Many, on the occasion of a walk through the woodland, must have noticed the masses of pretty little white flowers nestling in tufts of green beneath leafy branches. To have the *Woodruff* at its best, however, the shade must not be too dense. These are just a few common plants that come to mind for use where grass always fails to grow. —Y. Z.

Dimorphotheca Ecklonis.—I note that on page 360 "K. L. D.," in writing on South African plants, questions whether the subject of this note, sometimes styled the Transvaal Daisy, a name that is also often applied to *Gerbera Jamesoni*, will pass through the winter unharmed. I consider the *Dimorphotheca* a tender plant; indeed, far more so than such things as *Calceolaria Burbridgei*, *Hakea suaveolens*, *Bowkeria triphylla*, *Callistemons*, *Abutilon vitifolium*, *Buddleia Colvillei*, &c. I saw it in a sheltered Cornish garden two summers ago, and it had then come through the winter unprotected; but last summer I found it had been killed during the winter. Last December I saw a plant in South Devon that had withstood several degrees of frost without injury, but this also succumbed before the spring. In November, 1902, I took up a plant, put it in a large pot, and stood it during the winter in an open verandah where it received no harm. Last winter, it being too large to pot easily, I left it undisturbed, placing several stakes through it, over which I intended to throw a mat in frosty weather. However, I left home for five weeks, and the plant was unprotected. Though looking rather shabby in the spring it recovered and flowered well last summer. This winter it will be left again to take its chance. There have already been about 6° of frost, but it is at present uninjured, though I shall not be in the least surprised to lose it. —S. W. FITZHERBERT.

Australian rosarians.—A graceful tribute to the memory of the late Dean Hole was paid at the show of the National Rose Society of Victoria, says the Melbourne *Leader*, when a photograph of the eminent rosarian, surrounded by *Niphetos* blooms, occupied the place of honour in the centre of the Town Hall platform. Some time ago the secretary of the Victoria Racing Club, Mr. H. Byron Moore, sent photographs of Roses growing at Flemington racecourse. In acknowledgment he received an autographed photograph from the Dean, and this picture was used for the happily expressed appreciation of Victorian rosarians at last week's show.

TREES AND SHRUBS.

RHODODENDRONS IN SOUTH AFRICA.

RHODODENDRONS will never grow in South Africa," said Mr. Rhodes to me in response to my appeal that he should plant his lovely glen at Groote Schuur with that most beautiful of all English shrubs. However, the sight of my own collection convinced him that the southern slopes of Table Mountain suited them admirably, and I was instrumental in getting 1,500 planted in the grounds at Groote Schuur. I now enclose a photograph of the most strikingly beautiful specimen of the race named Pink Pearl, now growing in my grounds. I understand from the raiser, Mr. John

larly so if flowering, it still seems astonishing that so few attempts are made to make special features of them, considering how handsome they are. They are really at their best during the dulllest and most dreary part of winter. I think this neglect is partly accounted for from a mistaken idea many hold, that to succeed with Bamboos they must be grown near water or a running stream or pond. That such a notion is fallacious is amply proved by the fine beds, large groups, and single specimens one occasionally sees under quite different conditions, even on exposed banks. I admit, however, that their beauty is enhanced and a more natural effect produced when grown in sheltered nooks and dells, and if by a stream or a sheet of water so much the better. We have been endeavouring for some time to carry into practice this idea of associating Bamboos with natural growth.

In the grounds here there is a deep and narrow ravine, spanned near its lower end by a picturesque stone bridge. Down this ravine a natural stream falls, making cascades over and around boulders of varying size and shape. Both sides of the glen are in some places rocky and almost perpendicular, so much so that in planting, men, plants, and soil have to be lowered with ropes; in fact, it is as wild a bit of garden as one could wish to see.

Until a few years ago this dingle was crowded to the water's edge with splendid Oak trees, tall and straight, but a terrific storm laid most of them low, and although there was grandeur even then in their wild confusion, it was decided to clear the fallen ones, and cut down those left standing on the lower

japonica, *Phyllostachys viridi-glaucescens*, *P. aurea* and *P. fastuosa* predominate, with *P. Quiloi*, *P. Henonis*, *P. marliacea*, *Bambusa palmata*, and others in lesser numbers. *P. Castillonis* I have failed to establish. *A. Veitchii* I have reluctantly discarded, for, to my mind, the withered leaf margins form a serious defect in an otherwise fine Bamboo. I dare not trust the lovely and delicate *B. falcata* in these wilds on account of its tenderness and its probable destruction by enemies from which they all suffer more or less. My friend Mr. Speed of Penrhyn Castle Gardens has to lament the great havoc worked on his fine specimens by water rats. Here we are fairly exempt from their ravages, but our Welsh mountain sheep do much harm in the winter time in comparatively open woods, and to enclose such spots as these with a fence sufficiently formidable to keep them out would rob the place of half its charm. Rabbits also do their share of nibbling as well as breaking off the young growths when sprouting through the ground, and youthful sportsmen occasionally make a fishing-rod or a whip-stock with them.

Hitherto nothing but Bamboos and a group and some single plants of *Cryptomeria japonica* have been planted in this glen, and with the stream below and giant Oaks above the effect is natural and beautiful, especially during winter. There is certainly not much sameness in a collection of Bamboos. They vary in height from 2 feet to 20 feet, are of diverse growth, and many shades of green. To give further variety, however, we hope to plant a few *Cordylina australis*, *Phormium tenax*, and some of the strong-growing grasses, adding a clump or two of the Japanese *Wineberry* and the white-stemmed *Bramble*, two fine things for winter effect in clear country air. Respecting *Cordylina australis*, I think there is an erroneous impression as to its hardness.

Tan-y-bwlch, North Wales.

[J. ROBERTS.]

THE FERN GARDEN.

THE KING OF THE MALE FERNS.

THE common Male Fern (*Lastrea filix-mas*) is grown in thousands of gardens, even in town ones, and yet practically that far more beautiful form of it, known to Fern-lovers as the King of the Male Ferns, *Lastrea pseudo-mas cristata*, is never seen amongst them. It is as hardy, and in one sense even more so, since it belongs to a subsection of the family which is quite evergreen, and when protected from the battering influences of winter storm and snow retains its fronds in perfection well into the following season, and until the new fronds have completed their growth. It is therefore admirably suited for winter decoration, when the common ones have dropped their fronds and practically disappeared. Under glass it loses absolutely nothing of its attractiveness, owing to the tough nature of its fronds and erect habit of growth. Apart, too, from these features, it is one of our few native hardy Ferns, which, under congenial conditions and proper treatment, becomes in time a Tree Fern with a well developed trunk. This habit of growth is induced by persistent removal for a few years of the sideshoots or offsets which it produces on the basis of the fronds, a tendency which is subse-
quently much reduced as the trunk rises from the soil. We have a splendid specimen, now over thirty years in our possession, with a trunk some 1½ feet high, and a crown of thirteen spreading fronds. As its name implies, it is a tasselled form of the species, both the frond tips and those of the side divisions having fine many stranded tassels as their terminals, rendering it extremely handsome. The original plant was found wild about half a century ago at St. Austell in Cornwall, and apart from its free propagation by removal of the lateral offsets, it comes very freely and truly from its abundant spores. The result of this is that small specimens are obtainable for a few pence, so that its acquisition is easy enough, while as it is quite capable of outliving its owner



RHODODENDRON PINK PEARL IN SOUTH AFRICA (THE LARGEST PLANT IN THE WORLD).

Six feet wide and five feet through.

Waterer, that it is probably the largest in the world. The plant was imported in 1897, and is now 6 feet high and 5 feet through; it has larger trusses than any variety I know, and has rejoiced the hearts of my English visitors, growing as it does with hundreds of other varieties in juxtaposition with the Papyrus of the Nile and the weeping Pine of New Zealand.

H. M. ARDERNE.

The Hill, Claremont, Cape Town.

BAMBOOS IN THE OUTDOOR GARDEN.

ADMITTING the fact that most Bamboos have a withered appearance in the summer, and particu-

larly so if flowering, it still seems astonishing that so few attempts are made to make special features of them, considering how handsome they are. They are really at their best during the dulllest and most dreary part of winter. I think this neglect is partly accounted for from a mistaken idea many hold, that to succeed with Bamboos they must be grown near water or a running stream or pond. That such a notion is fallacious is amply proved by the fine beds, large groups, and single specimens one occasionally sees under quite different conditions, even on exposed banks. I admit, however, that their beauty is enhanced and a more natural effect produced when grown in sheltered nooks and dells, and if by a stream or a sheet of water so much the better. We have been endeavouring for some time to carry into practice this idea of associating Bamboos with natural growth.

In the grounds here there is a deep and narrow ravine, spanned near its lower end by a picturesque stone bridge. Down this ravine a natural stream falls, making cascades over and around boulders of varying size and shape. Both sides of the glen are in some places rocky and almost perpendicular, so much so that in planting, men, plants, and soil have to be lowered with ropes; in fact, it is as wild a bit of garden as one could wish to see.

Until a few years ago this dingle was crowded to the water's edge with splendid Oak trees, tall and straight, but a terrific storm laid most of them low, and although there was grandeur even then in their wild confusion, it was decided to clear the fallen ones, and cut down those left standing on the lower

face. A few fallen ones were left spanning the glen from edge to edge, and at a good height above the waterfall. These, I think, improve the effect and emphasise the natural wildness. It then occurred to us that if Bamboos would succeed there it would be an appropriate place; hence some were planted, a few groups and large single specimens, but many—of necessity in such a position—quite small bits. It was gratifying to note how even these grew apace. The humid atmosphere, comparatively sheltered situation, and the quantity of dead leaves which drift and decay around them suit them admirably. A fairly representative collection has been planted. Such as *Arundinaria Simonii*, *A.*



WAY OF PROTECTING STANDARD TEA ROSES.

unless starved to death by neglect and drought, and grows, moreover, in any garden soil, the first outlay is amply repaid. No better Fern, indeed, can be recommended by way of sampling our British Fern varieties, and we are confident that anybody acquiring a specimen and giving it the little care it needs would speedily look about for some of its companions, and in time see the foolishness of growing what Fern connoisseurs regard as weeds, *i.e.*, the common kinds in popular vogue. The Male Fern species alone has yielded scores of forms far more charming and interesting than the normals, some small enough for Wardian cases, others, like the "King," of grander presence, and fit for decorating the more aristocratic conservatories in existence. CHAS. T. DRURY.

THE ROSE GARDEN.

THE WINTER PROTECTION OF TEA ROSES.

THE touch of real winter cold which came suddenly upon their gardens towards the end of November must have caused the thoughts of all true Rosarians to turn to their Tea Roses, and to consider what had best be done to protect them from injury should the frost continue. It is seldom these early frosts are very severe or last any length of time. In 1890, however, cold weather set in

then, in most years, is the growth of the plants sufficiently arrested; so that a moderately hard frost in the beginning of the winter is to be welcomed, as it brings the plants to a standstill and divests them of the greater part of their foliage.

The comparatively modern plan of earthing up dwarf Tea Roses is a simple and excellent one—that is to say, the surrounding soil is drawn over the crown of the plants to the depth of several inches. It is truly surprising the non-conducting properties of this slight covering of earth, for at pruning time, after a severe winter, when no sound wood is to be seen above that slight covering, beneath it the shoots will nearly always be found to have remained altogether uninjured; of course, the drier and looser the earth the more complete will be the protection it affords. The shoots of certain varieties of the Hybrid Perpetuals and Hybrid Teas appear to be quite as tender as those of the Teas, and for that reason the dwarf plants of both are here earthen up at the same time. Indeed, but for the extra trouble, I should earth up all the Roses in my collection, as I feel sure the plants would be benefited and the lower buds on the best shoots improved.

The one difficulty is how to afford protection to the heads of the standard Teas. I have tried a good many methods and have come to the conclusion that the one I now adopt is as

good and simple as any. A central stake, rising about a foot above the head of each plant, is driven firmly into the ground close to the standard itself, and then fastened to it. The shoots are afterwards tied loosely to the stake in a roughly conical form, and afterwards lightly thatched over with straw or Bracken; which ever material is used it should be tied firmly to the top of the stake. Two other ties lower down will also be necessary in order to keep the conical cap in its place in windy weather. Of the two, straw is the more effectual, as it holds less moisture, and more completely throws off rain and snow. Bracken, however, has the great advantage of being far less conspicuous, and consequently less unsightly.

I have this year adopted a somewhat similar plan with my dwarf Teas, the shoots of which are secured to a short central stake after a handful of Bracken had been placed in the middle of the plant. For tender climbing Roses planted against walls nothing can well be better than fine cotton netting stretched over them, or, failing this, a double layer of ordinary fish netting, while the lower part of the plants may be protected with Bracken or litter. Another way would be to work in a little Bracken or pieces of Fir along the leading branches. Soils and climates vary so greatly in different localities as regards their influence upon Roses, and winters, too, differ considerably, so that it is impossible to lay down any fixed rules as to what protection is necessary under all circumstances. We must, however, never forget that there are such things as killing frosts, although they may occur but seldom, and that Tea Roses are at the best only half-hardy plants. Therefore, in my opinion, the wisest plan is at the beginning of each winter to provide the plants some such moderate protection as I have suggested, if only for the sense of comfort and security the rosarian himself feels when he knows that whatever may happen afterwards in the way of high winds, deep snows, or intense frosts, his favourites are safe from serious injury.

As a rule, the second week in December is quite soon enough to begin protecting Tea Roses, for not until

EDWARD MAWLEY
Rosebank, Berkhamsted.

THE FLOWER GARDEN.

THE OLD POT-HERBS IN THE FLOWER GARDEN.

SOME of these old pot-herbs are beautiful things, deserving a place in any flower garden. Sage, for instance, a half shrubby plant with handsome grey leaf and whorled spikes of purple flowers, is a good plant both for winter and summer, for the leaves are persistent and the plant well clothed throughout the year. Hyssop is another such handsome thing, of the same family, with a quantity of purple bloom in the autumn, when it is a great favourite with the butterflies and bumble-bees. This is one of the plants that were used for an edging in gardens in Tudor days, as we read in Parkinson's "Paradisus," where Lavender Cotton, Marjoram, Savoury, and Thyme are also named as among the plants used for the same purpose. Rue, with its neat bluish green foliage, is also a capital plant for the garden where this colour of leafage is desired. Fennel, with its finely-divided leaves and handsome yellow flower, is a good border flower, though rarely so used, and blooms in the late autumn. Lavender and Rosemary are both so familiar as flower garden plants that we forget that they can also be used as neat edgings if from the time they are young plants they are kept clipped. Borage has a handsome blue flower, as good as its relation the larger Anchusa. Tansy, best known in gardens by the handsome Achillea Eupatorium, was an old inmate of the herb garden. Sweet Cicely (*Myrrhis odorata*) has beautiful foliage, pale green and Fern-



like, with a good umbel of white bloom, and is a most desirable plant to group with and among early-blooming flowers. And we all know what a good garden flower is the common pot Marigold.—*From Elglood's "Some English Gardens."*

A PLACE FOR CLIMBERS.

As a rule, a pergola is best when spanning a wall leading from one portion of the garden to another, and it should be fully exposed to the sun, so that it will form a cool, shady walk during the hottest part of the day. Its material is a matter for individual consideration, but I think, on the whole, the massive brick or stone pillars occasionally seen have but little to recommend them. They rarely become quite covered with the climbers, and at the best are very ugly for several years. A framework of iron and wire trellis is neat and durable, and easily hidden by the foliage. But perhaps the most appropriate-looking is a simple pergola formed of Oak or young Larch. Sticks of the former from coppice wood which has been "rinsed" are very suitable, and can often be had fairly cheap. I know the bark on the wood for pergolas is considered to give it a more natural appearance; but no matter how constructed, the pergola is a purely artificial adjunct to the garden. The bark would soon begin to fall off in patches, and while on it not only harbours insect pests, but by holding moisture hastens the decay of the post. The uprights must be firmly fixed, and the structure should be sufficiently high to allow a tall person to walk underneath without having to continually "duck" under the trailing growths.

WHAT TO PLANT.—This is a matter for individual taste, but in most instances Roses, Honeysuckles, Clematises, and the old-fashioned Jasmine will predominate, and many annuals—such as Ipomœa, Tropæolum, and Convolvulus—will be added.

A. C. BARTLETT.

WALL GARDENING.

SNAPDRAGONS (ANTIRRHINUM).

THE beautiful free-growing Snapdragons, with large flowers of pure and bright colouring, seeds of which are to be had of our best seedsmen, are such grand garden plants that to see a garden in which they are not amongst the best of the late summer flowers is to receive an impression of wilful neglect of the best things on the part of the garden's owner. But now that wall gardening is so generally practised in places where a change of level in the ground offers an opportunity of adopting this delightful way of growing many a good plant, these grand Snapdragons are among those that first present themselves to the mind of the thoughtful gardener. They are in three sizes, tall, intermediate, and dwarf. The dwarf kinds are not greatly prized by those who look for the greatest beauty of which these good things are capable, but the intermediate and the tall may be praised and welcomed with loud acclaim, as the pictures well show. For technical reasons the large group in one of the pictures of the intermediate size—the picture that has two Foxgloves at the further end—does not show well, their strong yellow colouring coming too dark in photography, only one white plant near to the grass showing properly.

The wild Snapdragon is a native of old walls, ruins, and chalk pits, thus giving a plain indication of its best use in gardens. Those shown in the illustration grew with amazing freedom, and remained in flower for many weeks. They are entirely white, and the effect is more beautiful when one colour only is used.

G. JEKYLL.

COLOURED PLATE.

PLATE 1265.

SANDER'S HYBRID NICOTIANAS.

(WITH A COLOURED PLATE OF NEW VARIETIES OF NICOTIANA SANDERÆ.)

AMONG the exhibits from Messrs. Sander and Sons at the last Temple show was a collection of hybrid Nicotianas, which attracted much attention on account of the size and variety of colour of their flowers. They failed to create a sensation in the exhibition tent because of their surroundings, but anyone who has seen them in the St. Albans or Bruges nurseries of Messrs. Sander and Sons will know how very effective they are. Their history is not unlike that of the hybrid Streptocarpuses. We had possessed various species of Nicotiana, some of them grown only because they were forms of the two great commercial Tobacco plants, *N. rustica* and *N. Tabacum*, and some because they had a decorative value in the garden. The best of the latter, *N. alata*, commonly known as *N. affinis* and *N. sylvestris* found general favour as border plants, their white fragrant flowers being produced in abundance and almost throughout the summer without much effort on the part of the cultivator. But no one had crossed these plants, probably because it did not appear to be worth while.

About four years ago, however, Messrs. Sander and Sons obtained from their collector, M. Forget, during an expedition in Brazil in search of Cattleyas, seeds of a Nicotiana which produced plants not unlike *N. alata* in habit, but with bright rose-red flowers. They named it after the collector, and happily decided to

test its merits at once as a breeder by crossing it with other species. The results have been most gratifying, and we may expect that the race thus started will, under the crossing and selective process now so well understood, in a very short time develop into one of the most useful and beautiful garden plants we possess.

This year Messrs. Sander and Sons are offering, through the seedsmen of this and other countries, seeds of a hybrid Nicotiana obtained by crossing *N. alata* with *N. forgetiana*, and which they have called *N. Sanderæ*. A beautiful coloured plate of it was published in the July number of *Flora and Sylva*, from which I quote the following particulars: "*N. Sanderæ* has all the good qualities of *N. alata*, plus the colour and flat, open-faced flowers of *N. forgetiana*. A large houseful of it in flower at St. Albans a few weeks ago was a most pleasing picture, each plant being about 3 feet high, leafy to the base, with from six to nine branches, divided again into at least half a dozen branchlets, each bearing from six to ten open flowers, with many buds to follow. Every plant was an elegant arrangement of rich green foliage and clusters of large rose-red flowers. The largest flowers I measured were 2½ inches across. These plants were grown in pots, but I am assured by Mr. Sander that equally good results may be obtained from plants grown in the open border. No doubt *N. Sanderæ* will be more generally valued as a plant for the open air flower-bed, but it will also be of considerable decorative value as a pot plant for the conservatory. It produces seeds freely and comes true from seeds."

The six forms represented in the accompanying plate have been produced by crossing the hybrid *N. Sanderæ* with *N. alata* and *N. sylvestris*, and by crossing the last named



SNAPDRAGONS IN WALL IN A BERKSHIRE GARDEN.

with *N. forgetiana*; in short, we may call these seedlings the outcome of a free mixing of the three species, *N. forgetiana*, *N. alata*, and *N. sylvestris*. It is satisfactory to learn that these seedlings are not only fertile and prolific in seeds, but that they come true from seeds. This is also the case with selected forms of *Streptocarpus*. Messrs. Sander and Sons inform me that the six seedlings here figured have been in full bloom all summer in the open ground, and were attractive until the frost cut them down. They have seeded freely, and there is no more difficulty in growing them every year from seeds than is experienced with the common Tobacco plants. I am informed by Messrs. Sander and Sons that seeds of these new hybrids will be offered next year (1906).

The *Nicotiana Sanderæ* hybrids depicted in this illustration will not be in the market either as plant or as seed until next year (1906), and the only *Nicotiana* which can at present be procured is the original type or carmine variety, which, through the intermediary of the London wholesale trade, is obtainable from all seedsmen throughout the Empire.

It may be worth while to give here a few particulars of the genus *Nicotiana*. It is related to *Cestrum*, *Petunia*, and *Salpiglossis*, some fifty species having been described. Most of them are, however, weeds of no horticultural interest, the best, so far as one can judge from dried specimens, being those we grow, including the species named above and *N. tomentosum* (Colossus), a handsome foliage plant of which there is a striking though somewhat delicate variegated variety. The genus is most famed for the two Tobacco-yielding species, namely, *N. Tabacum*, originally from America, but now cultivated throughout the tropics and said to yield all the better quality Tobaccos, those of coarser, stronger quality being from *N. rustica*, also of American origin. They differ from each other in the colour of their flowers, *N. rustica* being rose-tinted, the other being yellow, and in the form of their leaves, *N. rustica* having broad cordate foliage, whilst in *N. Tabacum* the leaves narrow gradually

towards the base and run some distance down the stem. It is probable that the two species cross readily when grown near each other. W. W.

NOTES ON HARDY PLANTS.

CIMICIFUGA SIMPLEX.

ALTHOUGH one of the most elegant autumn flowering plants, it is only of recent years that this species has attracted much attention. It has been in cultivation for a long time under various names, as *C. japonica* and *Pitryosperma acerinum*. These two latter names are synonyms, and *C. simplex* differs from them in its more robust habit, more decomposed leaves, as well as in the mature fruit carpels, which in *C. simplex* are stalked, while in *C. japonica* the carpels are practically

before those of *C. simplex*, and 'in' good numbers, making it a most effective border plant. It has been in cultivation for nearly a century, and is figured in the *Botanical Magazine* at t. 2069. Some of the flower spikes are nearly 12 inches in length. It is usually found growing in shady woods on the high mountains of Carolina. *C. elata* grows from 6 feet to 8 feet high, with more distinctly lobed and thinner biternate leaves. The flowers are not showy, and are borne on much branched inflorescences. It is a native of shady woods in Oregon.

C. fetida, a native of Europe and Northern Asia, is sometimes referred to as a synonym of *C. elata*. It is, however, distinct, although there is a certain general resemblance. It is not so tall, and the white flowers in large branched panicles are much more showy. A distinct feature of this plant is its unpleasant smell and the large carpels which succeed the flowers. *C. japonica*, a Japanese plant, is of somewhat weak growth, with ternate, or, when unusually strong, biternate leaves. The flowers are in smaller spikes than those of *C. simplex*, and it is a much inferior plant. *C. racemosa* (the Black Snake root) flowers in July. It is a tall growing plant, with compound, long racemes of white flowers. It is the oldest species in cultivation, having been introduced into this country in the year 1732. It is found in woods from Canada to Georgia and the Western States. There are other species of *Cimicifuga* in cultivation, including *C. americana*, *C. biternata*, and *C.*



THE RARE CIMICIFUGA SIMPLEX AT KEW.

sessile, and usually fewer in number. *C. simplex* is a native of Japan, and makes a neat bush from 2 feet to 3 feet high, with good sized triternate leaves, and long, slightly nodding inflorescences of white flowers. These last for a long time, although they are sometimes injured to a certain extent by heavy rains. It is one of the easiest plants to grow, and does not mind lifting and division, although established plants produce a greater quantity of longer racemes. The illustration shows a bed in full flower in October, all the plants resulted from one large clump divided during the previous autumn. Next season they will be still more showy than this year.

Besides this species, the genus *Cimicifuga* contains several others of considerable garden value, one of the finest of which is *C. cordifolia*, a North American plant, with large leaves of handsome appearance, about 4 feet high, in good soil, and long branching racemes of whitish flowers. These are produced about a month

davurica; they are somewhat similar to some of the others, and not worth growing as distinct plants. W. IRVING.

HOLLYHOCKS.

THE time is August, and these grand flowers are at their fullest bloom. They are the best type of Hollyhock, too, with the wide outer petal and the middle of the flower not too tightly crumpled. Hollyhocks have so long been favourite flowers—and, indeed, what would our late summer and autumn gardens be without them?—that they are among those that have received the special attention of raisers, and have become what are known as florists' flowers. But the florists' notions do not always make for the highest kind of beauty. They are apt to favour forms that one cannot but think have for their aim, in many cases, an ideal that is a false and unworthy one. In the case of the Hollyhock, according to the florist's standard of beauty and correct form, the outer wide petal is not to be allowed; the flower must be very tight and very round. Happily, we need not all be

florists of this narrow school, and we are at liberty to try for the very highest and truest beauty in our flowers, rather than for set rules and arbitrary points of such extremely doubtful value.

The loosely crumpled inner petals of the loveliest Hollyhocks invite a wonderful play and brilliancy of colour. Some of the colour is transmitted through the half-transparency of the petal's structure, some is reflected from the neighbouring folds, the light striking back and forth with infinitely beautiful trick and playful variation, so that some inner regions of the heart of a rosy flower, obeying the mysterious agencies of sunlight, texture, and local colour, may tell upon the eye as pure scarlet, while the wide outer petal, in itself generally rather lighter in colour, with its slightly waved surface and gently frilled edge, plays the game of give and take with light and tint in quite other, but always delightful, ways.—From Elgood's "Some English Gardens."

ARRANGING FRUIT AND FLOWERS.

NOTHING is more frequent in our homes and more especially in our gardens, than to see good things either misused or merely got together without any attempt to classify or to reconcile or to harmonise. It is the fashion now to collect; nine people out of ten among well-to-do folk who have the pleasant task before them of furnishing the home that they are to live in for many years—perhaps for life—will take pleasure in visiting old furniture shops and buying a quantity of articles that take their fancy. Just now there are keen collectors of old English furniture, of French of the time of Louis Quatorze, of eighteenth century English. All are about equally in fashion. The larger number of buyers have but little knowledge of styles; they buy all three kinds, and bring them home in triumph, and complete the appointments of their houses with a good sprinkling of Oriental things of two or three different nationalities and of several epochs.

So it is that a modern London drawing-room will have, perhaps, a preponderance of inlaid furniture with brass mountings and spindly legs, supposed to be French, and in the same room there will be an old English Oak linen chest, with very coarse carving, that may have come out of a Sussex farmhouse, and an Oak dresser from a cottage kitchen, whose top shows that it was made for a room about 6 feet 9 inches high. And all this incoherent jumble of articles is brought together into one room, and there left to fight it out as best it may.

So it is also in our gardens. In nine gardens out of ten, whose owners have partly awakened to a love of flowers, the first thing is the collecting together of a large number of different kinds of plants and shrubs. Here it is quite natural and excusable, because every beautiful flower that is seen elsewhere is admired and desired. Therefore, it is quite a reasonable way to begin; but it should only be beginning. It is a means of gaining a good

knowledge of the plants. The sorting out of those that will be for the best adornment of the particular garden, and that will enhance each other's beauty by a right companionship, is a great forward step. As the desire for such an act of progress arises so will the intelligent pleasure in gardening increase

and, though it is not given to everyone to possess, or even to be able to acquire, a good eye for colour harmonies, yet the whole subject has become so much a matter of general education within the last quarter of a century, and there is such an extremely wide range of material and good colouring now to choose from in shops, that it should be easy to avoid glaring error.

Already it is the rule rather than the exception that arrangements of flowers in rooms are made in good taste. It is generally understood that the old tightly-bunched mixed bouquets of fifty years ago are things of the past. In country houses the mistress or her daughters arrange the table flowers with simple good taste, using one kind of flower at a time, or some pretty mixture of not more than two or three kinds of blossom and foliage. They also choose their flowers so as to suit the colouring of the walls, and soon get to know the kinds and colours of the blooms that seem most happy to accord with the various places where it is desirable to have the bouquets. They find that the room insists on having certain things in certain places. One place may ask for white flowers with rather bright green foliage, and one finds that it is gratified by being given Solomon's Seal, or tall white Tulips, or great branches of white Lilac; and later, white Roses in large sprays of arching, or sheaves of upspringing, blossom. Another place may demand those of an orange colour, and receives the great orange Lilies or Alströmérias, or Orange Day Lily or African Marigold. Another again wants crimson, and has Tulips—the tall May-flowering kinds—and, later, the old garden Pæonies, red, rose, and pink, and then Rhododendrons, and so on throughout the year.

It is safest certainly to begin with the simplest arrangements of some one thing, such as the jar of Daffodils of our picture, taking care to place them so that the flowers show themselves at their best and stand up as a handsome sheaf; enough but not crowded; with a few of their own leaves, and in such a jar as will hold them easily and comfortably, with plenty of water, and all their stalks reaching to the bottom. Flowers take kindly to careful arranging; they seem to understand what is required of them, so that however well and carefully they may have been placed in their jar, they will be found next day to have accommodated themselves so well to their position that they are even better than before. Many of those who are accustomed to pick flowers for indoor use will have noticed a curious thing—how often it happens that the flowers seem to arrange themselves in the hand, and can scarcely be bettered afterwards. This is especially the case with bunches of Roses. It may be that unconsciously each Rose as it is cut and transferred to the left hand is put there with some idea of balance. Roses are heavy things; moreover, the prickliness of the stem makes their after

arrangement a matter of some discomfort in the actual placing in the jar, the prickles catching in the stems of those already placed and tending to disarrange them.

G. Jekyll.

(To be continued.)



A JAR OF DAFFODILS.

—the learner will be unconsciously teaching himself, and his advancement in garden knowledge and garden judgment will thenceforward be rapid.

In the matter of the house furnishing the whole thing is much easier. Styles are clearly defined;

GARDENING FOR BEGINNERS.

INTRODUCTORY.—ADVANTAGES OF A NOTE-BOOK.

IT will be an advantage to have a note-book for jotting down things as they occur, and to keep a diary, as a record of important events will be useful. The entries should be brief and concise. A commonplace or garden scrap book, in which excerpts from various sources can be gummed, will be useful. Idle persons are of no possible use in a garden, but the real gardener is hopeful, as he knows, if interest can be aroused, the idle boy or man of to-day may become the energetic enthusiast of the future. The real question is, can we inspire this enthusiasm? We think it can be done.

Overcoming gardening difficulties.—Fighting and overcoming difficulties is a very useful part of our discipline, and a gardening difficulty met and removed gives a zest to future work. Gardening in its fullest sense is composed of numberless small details, all of which are important. The dying or dead plant furnishes useful object-lessons to those who are trying to trace the cause of disease by studying its effect. When a plant is diseased it is often cast away and forgotten, but that is not the scientific way. Try to find out the origin of the disease and the cure. The patient plodding man or boy may find in this the opportunity of his life in winning fame, if not fortune. There are many secrets in the garden to be explained and made clear. Everything the gardener touches, even the earth itself, teems with life, and there are many things we do not understand, but light will be given to those who strive for it.

FLOWER GARDEN NOTES.

Soil.—We must either fit the soil for the plant, or select the plant to suit the soil. To do this effectually we want to know the requirements of the plant and the constituents of the soil. The former is not so difficult to the experienced man, but may for a time puzzle the novice; but the character of the soil, until our chemical knowledge is more advanced, must remain in a loose condition. We know, of course, that pretty well all hardy plants will grow in what is termed loam suitably manured. The gardener's idea of loam is the top spit of a pasture field, but for ordinary gardening purposes we may give a wider meaning to the term, and say that any good workable soil may be so far improved by suitable additions in manures (and all matters which have the elements of decay may be regarded as manures for the purposes of the plant-grower) as to lead to a large measure of success.

Pressing work.—Among the work which demands attention now is to apply pressure to plants which may have been disturbed by frost. Recently planted trees, shrubs, Roses, &c., should be mulched with manure. Tea Roses are not the tender things they were formerly thought to be, and if mounds of soil are placed round the stems they will be pretty safe. Dry soil from a heap is better than earthing up with the soil near them, although the latter has in many places to do.

New beds for Tea Roses and Carnations may be made for spring planting. We believe in autumn planting, but the bought plants usually come to hand in spring. Whatever is purchased, have the best in its class only, and, where possible, save seeds. Do not buy rubbish because it may be cheap. The beginner often does this at first, and suffers in pocket and temper. In mild weather look after slugs and snails, and the slugs which lie close round the crowns of Pyrethrums and other plants are more destructive than the large ones.

FRUIT GARDEN NOTES.

Pruning and planting fruit trees may still be done in open weather. In pruning treat all trees individually; some may require more pruning than others. Marie Louise Pears, for instance, bear a good deal of fruit at the end of long spurs. Others keep their fruit spurs nearer home, and if all were treated alike some would be fruitless. A well-managed fruit garden is very interesting at all seasons. An expert would be able in most instances to tell the varieties from the growth of the trees when quite leafless. Air and sunshine are the prime factors of fertility, and the pruner must keep this constantly in mind. The tools used, whether knife or scissors, must be sharp. There must be no bruised tissues. If it is necessary to plant a young tree on the site from which an old tree has been removed, change the soil.



A BEAUTIFUL COLOUR SCHEME.

English make—not cheap foreign rubbish which break in the hands of a strong man.

Depth of soil.—The main point to be considered just now is to deepen and improve the soil. No one who wants good crops of vegetables should be content with less depth of soil than 2 feet; more, indeed, would be better, but with 2 feet of fertile soil and a freely stirred surface during spring and summer, while the plants are young, the growth will be luxuriant without artificial watering, except in the case of newly-planted things.

Seed Potatoes must not remain in heaps now. All the early varieties should be placed in shallow trays or boxes in a light position safe from frost. Duke of York, Windsor Castle, The Factor, and Sutton's Discovery are excellent varieties, and are reasonable in price.

Hot-beds.—Make up hot-beds with equal parts of tree leaves and stable manure, firmly built, for forcing early crops of Carrots, Potatoes, Asparagus, Radishes, and Lettuces. Sowings of the above may also be made on the early border as soon as the sun has warmed the soil. Early Peas and Beans sow now.

Manuring.—In manuring the land keep in mind the crops intended to be planted. Tap-rooted plants do not want fresh manure, and pod-bearing plants, especially Peas, draw most of their nitrogen from the atmosphere. Lime may be used with advantage in most gardens, especially where insects are giving trouble.

FLOWERS UNDER GLASS.

In the depth of winter to have flowers there should be a night temperature of not less than 50°. In this we can have not only those plants which flower naturally in the greenhouse at this season, but many things brought in from the forcing house. A genial atmosphere, neither too dry nor too moist, will be suitable for everything in bloom now—Azaleas, Camellias, Acacias, Cinerarias, Primulas, Cyclamens, zonal Geraniums, &c. In a light house these are lovely now. Weak liquid manure may be given to plants coming into blossom. E. H.

A COLOUR SCHEME.

To work out beautiful schemes of colouring is one of the best pleasures of the garden, and of such schemes some of the simplest are the most effective. The illustration shows a short length of double flower border with grey foliage and flowers of pink and purple colouring. *Gypsophila paniculata* shows as light clouds of grey-white, while *Stachys*, *Santolina*, and *Cineraria maritima* give certain solidity of more accentuated grey-white leafage. Lavender, Rosemary, *Nepeta*, and *Echinops* are of a deeper shade of grey as to their leaves, and their flowers, augmented by *Clematis Jackmanii*, *Heliotrope*, and, later, *Michaelmas Daisies*, give the required purples of the design, while the whites are done by *Clematis recta*, *Eryngium giganteum*, white *Everlasting Pea*, and *Achillea* the Pearl.

The pink flowers are that beautiful *Hollyhock* *Pink Beauty*, with *Lavatera*, *China Rose*, and *Godetia Double Rose*. No one who has not tried it would believe how good is the effect of such a restricted use of colouring. Many, indeed most, gardens are, if not spoilt, at least rendered uninteresting by a general mixture of colouring all over. It is only when colour is more thoughtfully used that we really see what our flowers can do for us. It is just the same difference as between the dabs of colour on a painter's palette and the same colours when wrought by his skill and knowledge into the finished picture. G. J.

KITCHEN GARDEN NOTES.

The best garden tools.—In his book "Sartor Resartus," Carlyle said "Without tools man is nothing, but give him tools and he will subdue the world." This is the work on hand, and it is important that our tools should be of the best

ORCHIDS.

ORCHID GROWING FOR BEGINNERS.

IN writing a series of articles for beginners in this most fascinating hobby I do it not so much for practical gardeners as for those amateurs who do not keep a professional gardener. Many are now taking up the cultivation of Orchids who have had no experience in their culture, and for the want of a few hints have found nothing but disappointment in the first few seasons, besides having irretrievably ruined many of the first purchased plants. In some instances this arises from starting with sorts that require more skill than beginners possess, or from obtaining sorts quite unsuited to the house in which they are grown. Another mistake that many fall into is in having one or two of many different sorts, with the ultimate result that by trying to make the house suitable for all, none succeeds. When the beginner gets more versed in their requirements he will be able to accomplish much that it would be folly to attempt now.

The beginner must first decide whether he will start with those requiring stove, intermediate, or cool temperature. To grow successfully a general collection three temperatures at least must be maintained. I would like to impress on those who so far have not started Orchid growing the great interest they afford. Many can be purchased at very reasonable rates. They are no longer the plant for the few, but for the many. Special forms and varieties will continue to command fancy prices, but many of them are not so beautiful as the cheap sorts; their rarity makes them expensive. The learner stands the same chance as the best authority in finding something of great value among imported plants. In many cases the purchase of imported Orchids has turned out a profitable investment. I do not intend to try to persuade lovers of flowers to take up this hobby as a paying one, but I do say that much real pleasure and enjoyment may be had every day in the week during the year at much less cost than with many other hobbies. Unlike many branches of gardening, the work among Orchids is clean, and as much interest will be found in watching the plants grow as there is in admiring the lovely, and, in many cases, peculiar flowers. Another thing that recommends them is their utility for cutting for house decoration. Many of them last for a considerable time. W. P. BOUND.

(To be continued.)

WORK FOR THE WEEK.

BRAZILIAN MILTONIAS.—All the varieties of the Brazilian Miltonias are useful for cutting and decorative purposes generally. The flowers retain their colour and freshness for a considerable time, so that where convenience can be given they should be well represented, and a little extra care given them at all times. The following kinds, *M. spectabilis*, *M. moreliana*, *M. peetersiana*, *M. virginalis*, *M. Bluntii*, and the distinct *lubbersiana*, have started to grow, and should be examined to see if any are in want of more pot room, as this is the proper season to repot them. These dwarf-growing plants are best grown in shallow pans, and as the creeping rhizomes extend themselves rapidly in every direction considerable rooting space is necessary. Old plants which have got bare in the centre may be divided, and diseased or useless living pseudo-bulbs and dead roots cut away. The living pieces may be made up again into neat, compact specimens, and those which have few roots to hold them steady should be pegged down close to the compost, as they will not succeed if in the least loose. *Miltonia Regnellii*, *M. stellata*, *M. Clowesii*, *M. Veitchii*, *M. lamarckiana*, *M. joiceyana*, *M. russelliana*, *M. Binotii*, &c., are of stronger growth, and should therefore be accommodated in the ordinary flower-pots. Those plants which are in bloom or have their flower-spikes well advanced should not be disturbed by repotting now, the proper time for the operation is when growth begins again. *M. candida grandiflora* and the best varieties of *M.*

cuneata are not grown so much as they deserve to be. Both are certainly Orchids of the first rank. The whole of the Miltonias enumerated will root freely in a compost which consists of good fibrous peat, leaf-soil, and sphagnum moss in equal proportions, to which may be added a moderate quantity of small crocks and coarse silver sand. Mix the whole thoroughly together and pot the plants with moderate firmness. Rather more than half of the pot or pan should be filled with drainage materials. During the growing season the compost should be kept just moist, but when the plants begin to send up their flowers the amount of water should be considerably increased. These Miltonias grow thoroughly well in a cool, shady part of the intermediate house. If placed in a very light position the foliage becomes far more yellow than is desirable. To grow these plants successfully it is important to see that the numerous small roots which push from the current season's growths are in no way injured or devoured by insect pests. W. H. WHITE.

Burford Gardens, Dorking, December 22.

THE FRUIT GARDEN.

PEARS FOR THE NEW YEAR.

WE have no season of the year in which the delicacies of dessert are more appreciated than now, and among all the fruits in season there is none better liked than a sweet and melting Pear. The season for the great bulk of ripe Pears is now over, and perhaps the best of the varieties as regards flavour have passed away. Still there are many good and highly-prized sorts which ripen later, and are excellent early in the year. Of the Pear it may truly be said that after it reaches maturity it decays and is out of condition sooner than any other hard fruit we possess. There is an old tradition that if you want to catch a Pear at its perfection of ripeness, you must be prepared to rise up at any hour of the night (or day) to enjoy it. This, I think, is true of many of the earlier varieties, but not of the later sorts. They do not ripen with the same rapidity, and will consequently remain in ripe condition for a much longer time. The following are among the best for Christmas and early in the New Year.

Beurre de Jonghe.—For sweet and rich flavour this is certainly one of the best of early January Pears; indeed, it is excelled by few autumn Pears in the matter of flavour.

Conseiller de la Cour.—A well-known November and December Pear, not unlike a large Jargonelle in shape. A very free bearer, and of rich flavour.

Knight's Monarch.—This is a superb variety when well grown; requires high culture during its season of growth, with plenty of water and a good mulching of manure in hot weather. It is of large size, rounder, and of a rich and aromatic flavour. If not generously treated in summer as regards watering, &c., it is liable to lose its fruits before they are fully grown.

Nouvelle Fulvie.—A Pear of large size, with melting flesh and a rich and delicious flavour. It succeeds best on the Quince stock.

Doyenné du Comice.—This well-known Queen of Pears, although usually ripe in November, may be frequently had in good condition later, especially when grown on a wall facing east, and carefully preserved in a cool fruit room.

Glou Morceau.—This Pear is a general favourite. It should be grown against a west wall.

Winter Nelis.—A small Pear, and one of the sweetest and best.

Beurré Baltet Père.—A large, finely-coloured fruit; the texture of the flesh is melting and juicy, and the flavour rich.

Baron Leroy.—A new variety and one well spoken of.

To those who enjoy stewed Pears the variety *par excellence* for this purpose is *Vicar of Winkfield*.

OWEN THOMAS.

PRUNING THE LOGANBERRY AND SIMILAR FRUITS.

MANY who grow the Loganberry and other fruits, such as the American Blackberry, the Wineberry, the Mahdi, and Brambles, do not know what to do when the plants have fruited. With regard to the true American Brambles my note will be brief, as commercially I do not think they are reliable croppers in this country. The seasons are not warm enough; at any rate, I have found them of little value here, and in cropping and flavour the wild Bramble is superior in every respect. The Wilson Junior has been recognised by the Royal Horticultural Society, and doubtless this is one of the best. It has fine berries, but with me in a wet season the plant runs away to growth. Of course, soils and situations may be answerable for failures. The ordinary Bramble fruits well when there is no pruning whatever, and this in a great measure indicates that a too free use of the knife would not be conducive to free cropping. This more closely refers to the Bramble and, of course, the Loganberry and the Mahdi, as they are allied. I find that much better results are obtained when good culture is given; that is, annual pruning, feeding, and training.

THE LOGANBERRY.

Few fruits have made more progress than this, as it is only about seven years since it was given an award of merit by the Royal Horticultural Society. The Loganberry succeeds where the Raspberry fails. It may be treated, too, in much the same way if free play is given, but there must be less shortening back. Severe pruning is not advisable. I prefer to treat it in a different way to the Raspberry. With us the Loganberry grows from 10 feet to 12 feet in length, and to cut the growths back to 4 feet or 5 feet would take away more than half of the crop. On the other hand, in many gardens the Raspberry is trained to a fence. Here the Loganberry will be at home, as the growths can be laid in nearly full length, and they fruit very freely. The fruit is produced on the new canes in clusters, and the best fruits often need some support owing to their weight. This is easily given when the growths are trained to a fence or wall. Quite recently I saw the Loganberry planted to cover an archway, and grown thus or as a pillar plant it is most effective; indeed, we have had growths 15 feet long in one season, so that its utility for pillar work is evident. As fruits are borne on the new wood we cut out all the old growths as soon as the crop is cleared, and for years I have advocated this treatment for the Raspberry. By cutting out the old wood, say, in August, and laying in the new the latter is greatly strengthened by the removal. This done, there is no further pruning. If the work was neglected the old wood should be cut out now and the best of the new retained. Always avoid crowding the shoots, as these should have ample room. At Syon we adopt another plan. Our best fruits are grown on a north wall, but much the same treatment is followed. At first twelve plants were put on a wall at about 4 feet apart, as at the time I thought it would grow in a similar way to the Raspberry. Four years ago every other plant was taken out to give more room, and even now they are crowded, as the new wood improves yearly. The plant makes early growths, and care must be taken that these are preserved and ready to take the place of the old fruiting canes.

WINEBERRY.

This is different from those noted above. It is a Japanese plant, and is known as *Rubus phoenicolasius*. The berries are Mulberry-shaped, produced in abundance, and of a bright red colour when ripe. The foliage is handsome, and the plant makes a strong growth on the new wood. It also fruits freely from lateral growths on the older growths, but I find that much better results are obtained when the plant is pruned after fruiting and the new growths encouraged. This should have ample space, an open position, and a good soil. I have grown this plant when pruned harder than the Loganberry, but much better crops are obtained when the new

wood is left at full length or only just shortened. To do this more space is required.

WHITWASH BRAMBLE OR BLACK CAP.

This is a Blackberry, but distinct from others, the stems being white as if whitewashed. The culture is most simple, merely cutting out old growths and leaving sufficient to crop, pruning being done in the autumn. This treatment may be adopted for other Brambles, though I have cut the growth back like the Raspberry when space is not plentiful.

STRAWBERRY-RASPBERRY.

My note would not be complete without naming this as a fruit. It is, however, of small value. The fruits are like those of the Arbutus and of poor flavour. It makes a dwarf bush, and only needs a little cutting back in winter.

THE BARBERRY,

of which vulgaris is one of the best known, is worth culture as it makes a nice preserve, and is

generally acknowledged to be the most handsome Apple in cultivation. It is of large size, somewhat pyramidal in form, with an open eye not unlike Blenheim Orange or Peasgood's Nonsuch. The stalk, which is thin, is set in a deep grey-green cavity. The ground colour of the skin is soft primrose, flushed and spotted with rich carmine-red on the sunny side. The flesh is white, fairly firm, and the flavour if the fruit is eaten before it is too ripe is pleasant. Those having an orchard house should grow a few trees of this variety in pots, as when grown in this way the fruits take on an intensely brilliant colour.

It is excellent for exhibition, and is ripe from November to January. The tree is of spreading growth. It should be grafted on the Paradise stock, and the trees should be occasionally root-pruned when young to promote fertility. The variety was raised in Kent,

GARDENING OF THE WEEK.

FLOWER GARDEN.

RAMBLING ROSES, Clematis, &c., on pergolas and pillars may now be pruned. Cut out dead wood, weak growths, and unripe points of gross shoots of the Roses. Clematis montana and others of this class do not require severe pruning, flowering as they do on old wood. C. Jackmanii and allied sections must be cut well back—even to the ground—if the space for covering is not very large. Garden Roses generally should be attended to, dead wood and weak growths cut out, further pruning being left until later. So with Teas and Noisettes. Assuming that dead stems and tops of tender and herbaceous plants have been cleared from the front of

SHRUBBERIES, this time of year affords a good opportunity for giving these a thorough overhauling, and it is a good plan first to make a general survey. See whether one shrub encroaches on another, and if so give more space to the better one. When this is properly attended to most shrubs need but little pruning; merely cut out an odd shoot here and there to balance the growth. This should be done with a knife or secateur. Above all things avoid using shears among shrubs. Where usually the shrubs are thickest, instead of digging the leaves in, it is preferable to spread a little soil over them to prevent their being blown about, thus saving the roots from mutilation, and feeding the plants at the same time. The front must be dug and manured for the reception of flowering plants in their season. During bad weather men can be employed under cover making labels. Stakes will also be wanted in quantities and in various sizes, and should be prepared, as well as shreds and nails.

Cuttings of the various shrubs likely to be required in coming years should be made and laid in soil safely until favourable weather admits of their being properly placed in for rooting. Order flower seeds without delay.

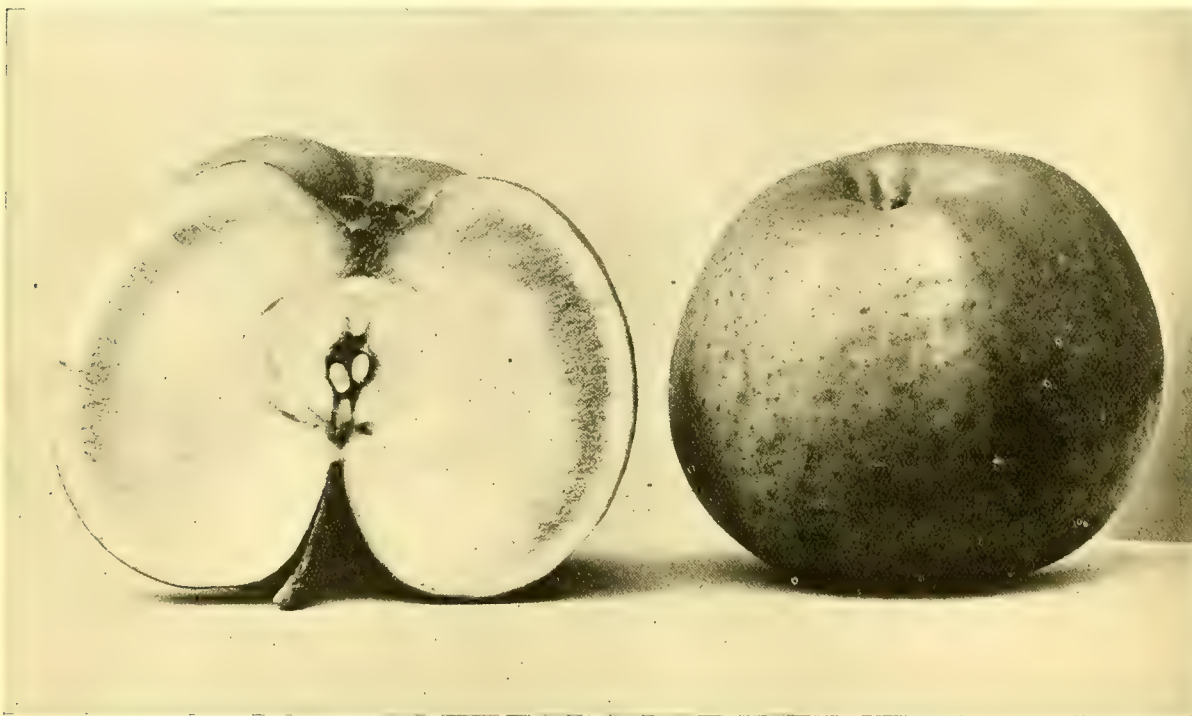
JOHN ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

GENERAL REMARKS.—With the advent of the New Year and the gradual lengthening of the days renewed activity will soon be noticeable in the plant houses. It is necessary, therefore, that all cleansing, both of the plants and houses not already accomplished, should be done without delay. Cleanliness is a great factor in successful gardening. The soil for potting should be placed under cover so as to be in suitable condition when required. The pots should be overhauled, and any sizes of which the stock is low ordered at once. On wet days help from outside can be obtained for scrubbing pots and cleaning crocks, thus having everything to hand when required. Work such as this saves much trouble later on when time is more precious.

STOVE.—The temperature at this season should not be too high, so as to excite unduly the plants' growth. If too much fire-heat is given thrips and red spider will soon make their appearance. A



APPLE GASCOYNE'S SCARLET. (Size of original, $3\frac{1}{4}$ inches high, 4 inches wide.)

useful for tarts mixed with other fruits. It grows freely, and the old wood must be shortened back and new growth encouraged.

G. WYTHES.

FRUITS IN SEASON.

APPLE GASCOYNE'S SCARLET.

WE hear much about imported Apples being more handsome and richer in colouring than ours, and undoubtedly it is true. American and other growers find out the weakness of the British public for highly coloured and ornate fruit, apart from any quality of flavour they may happen to possess. Hence their planting orchards with few varieties, and those of highly attractive appearance.

Let the above variety once be grown by the acre in England and placed on our markets by the ton, as imported Apples are, and we should soon be rid of the reproach that our Apples lack in brilliancy of colouring. This is

and received the highest award (first-class certificate) from the Royal Horticultural Society in 1887.

O. T. E.

PEAR BEURRE D'ANJOU.

THIS is a useful, hardy, prolific, and handsome fruit, and is well worthy of inclusion in all good collections of winter Pears. It grows to a large size, is even and regular in its outline, which is roundish. The skin is a beautiful yellow, tinged with green, and studded thickly with tiny brown, green, and crimson dots. Its flesh is white, melting, and juicy, of a very sweet and delicious flavour, with a distinct perfume. The tree is hardy and a robust grower, and succeeds well as a pyramid or espalier in the open ground, and is best worked on the Quince stock. This Pear is in season from Christmas to March.

OWEN THOMAS.

APPLE STURMER PIPPIN.

I AM glad to find that this good Apple is receiving more attention. I consider it unsurpassed either for dessert or cooking in March and April, the flavour of well-ripened fruit being delicious. Some complain of its small size, but when grown in good soil it is as large as Cox's Orange Pippin. J. C.

temperature of 60° on cold nights and 65° when the weather is mild, with a rise of from 5° to 10° during the day is quite sufficient. On very cold nights, if the temperature drops as low as 55°, it will be better than too much fire-heat with its attendant dryness. All watering should be done before midday. A slight syringing twice a day, early morning and about two o'clock, will be sufficient. Damp the paths and stages, especially near the hot-water pipes, several times during the day. Euphorbia (Poinsettia) pulcherrima and E. jacquiniædora will last longer in flower if removed to an intermediate and rather drier house.

CONSERVATORY AND GREENHOUSE.—In these houses a damp stagnant atmosphere must be avoided. The bottom ventilators should never be closed, except during very severe frost or a cutting wind. Sufficient fire-heat should be given to keep the atmosphere buoyant. A night temperature of from 45° to 50°, with a rise of from 5° to 10° during the day, will be ample. At this season it will not be difficult to keep the houses bright. The late Chrysanthemums are still a prominent feature, L. Canning (white and red), W. H. Lincoln, Golden Gem, Mathew Hodgson, Framfield Pink, Princess Victoria (white and yellow), Georgina Pitcher, and Mme. P. Rivoire are a few of the most useful. In most houses, especially those of large size, a warm position can usually be found for such plants as Begonia Gloire de Lorraine and its varieties, Messrs. Veitch's new race of winter-flowering Begonias, Reinwardtias trigyna and tetragyna, Plumbago rosea, and Jacobinia coccinea.

BULBS.—Successive batches of Roman Hyacinths, Paper White and other varieties of Polyanthus Narcissus, with Duc Van Thol Tulips, give a display till the earliest of the general collection come into flower.

FORCING SHRUBS.—Introduce a few of these into heat; begin with Prunus japonica fl.-pl., Deutzia gracilis, Spiræa arguta, Azalea mollis, and Rhododendron præcox. A Vinery or Peach house which is being started will suit their requirements admirably in the way of moisture, and gradual increase of temperature.

Royal Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

FORCING FRUIT TREES.—It is not until the New Year that the forcing of early fruit becomes general in gardens. To bring this important work to a successful issue much care and forethought are necessary in timing the respective crops so that a supply of soft fruit is forthcoming at the proper period. No matter how good the quality of the fruit may be, if it is not ready at the time it is most desired great disappointment ensues. We find it a great help to have a neat board hanging in each house, on which a record is kept of the dates of the different phases of development which take place, from closing the house to gathering the fruit. These records will be found of interest and assistance for reference the following year.

MELONS.—To have ripe fruit at the beginning of May seeds of a reliable sort should be sown at once. Fill 3-inch pots with loam soil, which should be warm, with a little finely broken mortar rubble mixed. Sow two seeds in each pot, so as to be on the safe side in case one fails to germinate, eventually removing the weaker one. Plunge the pots in a bottom-heat of 80° till the seedlings are well through, then place them on a shelf near the glass to encourage a sturdy growth. Some people prefer fruiting their earliest Melons in pots, but we find the ordinary bed most satisfactory. As the earliest crops benefit by a hot-bed, the material should be prepared at once of well fermented leaves and stable litter in equal parts. In forming the bed the fermenting material should be raised, so as to allow for a bed of soil 18 inches wide by 9 inches deep, the latter being brought within a few inches of the trellis. It is important to make the soil firm; a loose rooting medium is conducive to soft, pithy growth, which is very liable to canker. A barrowload or two of old mortar rubble will improve soil of a retentive nature. Endeavour to

make the season of growth as short as possible consistent with strong, healthy foliage; this is necessary to procure fruits of the best flavour.

CUCUMBERS.—It is only in the most favoured districts that winter Cucumbers can be grown with any success. No time should be lost in raising young plants, so that a new plantation can be made at the earliest opportunity. Sow the seeds singly in 3-inch pots in a compost of loam and leaf-soil in equal parts. The soil should be warm and in a condition that no water will be required till after germination. The seedlings should be potted on, when ready, into 6-inch pots and kept near the glass, so that strong plants may be had at the time of planting. A hot-bed as recommended for Melons should be made, but a covering a few inches deep of half-rotten Oak leaves will be found of great benefit to the roots. A night temperature of from 65° to 70°, according to the outside temperature, will suit both Melons and Cucumbers, but they enjoy a warm moist atmosphere during the day. E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

PREPARING FOR THE YEAR.—A great deal of profitable pleasure may be derived from a study of the capabilities of the ground at command and from planning the coming campaign. It has been well said that a day lost is never regained, therefore now is the time to get work forward. All vacant ground must be trenched or dug without delay. Should the weather be favourable, and labour will allow, deep tillage will give the best results. If the lower spit is unfit for the top, it should nevertheless be turned over. Surface soil must be left in a rough condition, in readiness for the purifying influences of frost and snow, should they prevail. Take advantage of frosty mornings to have manure wheeled on to unoccupied ground to be in readiness for digging. Manure and rubbish heaps may also be turned, with a view to preparing compost for improving shallow parts of the garden at some future time. Where old buildings exist every effort should be made to get a quantity of old lime rubble. This gives good results on many crops. Pea and Bean stakes had better be overhauled, the best of the old ones retained, new ones painted and trimmed. All should be graded so as to avoid confusion when staking time arrives.

PEAS AND BEANS.—The first sowings may now be made, 3½-inch or 4-inch pots being preferable to boxes for convenient transplanting at a later date. The pots can be drained with a small quantity of partly decomposed leaves, the remaining part being filled up with light friable soil, pressed fairly firm. Soil from an old Cucumber or Melon bed answers the purpose admirably. It should be well moistened with tepid water. Plant from four to five seeds in each pot, and cover lightly. The pots can now be put into a house with a temperature of from 50° to 55°, and if kept at a moderate distance from hot-water pipes little water will be required for a few days. For early Peas Laxton's William I. and Sutton's May Queen are reliable varieties. Broad Beans should be sown in pots of the same size as those advised for Peas, with the same drainage and soil. Fewer seeds are required, two in each pot being sufficient, one of those to be drawn out, retaining the best plant after they have attained the length of 4 inches. Early Long Pod and Green Windsor are favourite sorts.

SALAD.—A pinch of Lettuce seed should now be sown. All the Year Round and Epicure are early sorts and of good flavour. Sow in seed pans or boxes, which must be well drained with clean potsherds. Over these place some half decomposed leaves, thus allowing a free passage of water, and affording a good rooting medium later on. Fill the boxes or pans to within a quarter of an inch from the top with light and fresh soil, some that was collected where turf has been chopped up will answer well. Sow all over the surface, not too thickly, and slightly cover with soil. Water very lightly through a fine rose. Then place a piece of brown paper over the top, as all seeds sown at this date germinate much quicker

in the dark; place in a house with a temperature of about 50° or 55°. As soon as germination has taken place remove the paper and place in a light and airy position to prevent damping. J. JEFFREY.
The Gardens, St. Mary's Isle, Kirkcudbright, N.B.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

LESSONS FROM CHRYSANTHEMUM SHOWS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—A question respecting the growing of these admirable flowers of the early winter months has of late so frequently and prominently come before us, that it is evident that it will be well to put it plainly before the horticultural public, with a view to ascertaining whether the opinion that we hold is or is not in harmony with that of the greater number of the owners of good gardens. Gardeners are naturally influenced by shows, and at shows of Chrysanthemums they have, until quite recently, seen only single blooms produced at the sacrifice of a whole plant. The show has therefore taught them that the only flowers worthy of the best culture and the highest consideration are these single blooms of the largest size.

It is one of the cases in which it seems to us that the teaching of the show is not of the soundest. The giant blooms of perfect symmetry are, without doubt, evidences of cultural skill; but, after all, the thing is done more or less by a recipe, and in many cases the admired perfection is arrived at by processes of manipulation known as "dressing," such as cannot claim to be included within the bounds of legitimate horticulture. Then the large flowers are of very little use except upon the show table, while their production involves considerable expense and lamentable wastefulness. They are of a size quite unsuited to room decoration, and the large, globular shape into which they are pushed by high feeding deprives the flower of its natural and graceful beauty of form.

If private gardeners were to visit the factories where the market blooms are grown, they would see cultured skill directed to the most useful purpose; the purpose that, we fully believe, would be most desired by the greater number of private people.

This fact of the want of naturally-grown Chrysanthemums has been brought to bear upon horticultural societies, and classes including them are now usual in the schedules. We believe that these classes, and the general recognition of their utility, will gain ground by leaps and bounds; but it is mainly for the owners of gardens to provide the powerful impetus that shall give lively movement to the production of the more useful forms of this grand winter flower.

The question, therefore, that we wish to ask the owners of gardens where indoor Chrysanthemums are grown in some quantity, is: What kind of plants do they wish to have grown for them? Do they wish for the single blooms of large size; the whole plant, with all the labour and house room its production involves, being given to the making of the one giant flower; or do they want graceful, branching bushes, well set with abundant bloom, as pot plants for room or conservatory decoration, or for yielding a good store of flowers for cutting?

Good taste and the better knowledge are making rapid strides in all paths of horticulture. Already, in Chrysanthemum shows, the ugly old way of training the plants as round balloons, evenly spotted with flowers, is extinct. Those who grow for exhibition have come to see that it is the most senseless and unnatural form into which they can possibly coerce the branches of an erect-growing, half-woody-stemmed plant. It is only reasonable to hope that within a very few years gardeners in general will, of their own desire, be directing their skill and intelligence, and their daily increasing

knowledge of what is of truest beauty and fittest development, to the plants entrusted to them, rather than to the unthinking pursuit of the dull and lifeless ideal of mere size.

A great power for good is in the hands of the organisers of shows, and in country places much may be done by individual amateurs, either by offering prizes for naturally-grown plants well grouped, or by having their plants so grown as to show their utmost beauty, and by exhibiting them, not for competition, but for example and encouragement.

We believe that this is wanted in the case of at least nine out of ten private gardens—namely, Chrysanthemums for the best use and the highest beauty, rather than for anything approaching the usual show forms.

I should like to invite an expression of opinion from the owners of gardens where Chrysanthemums are prominently grown.

A READER.

CAMPANULA PORTENSCHLAGIANA BAVARICA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. J. Cornhill in his interesting notes on this plant in your issue of the 17th ult., remarks that it only differs from the type in colour. As we know it, it is also a very much larger and more robust-growing variety. It is a pity that this fine Campanula is so little known and yet should be so variously designated. It is grown under the names of *C. portenschlagiana bavarica*, *C. muralis bavarica*, *C. portenschlagiana major*, and in Scotland *C. mollis*. We notice that Mr. Robinson in his latest issue of "Alpine Flowers" treats of it under the latter name. It possesses the desirable characteristics of being evergreen and "slug" proof.

Kirkbride, Carlisle.

J. STORMONTH.

FLOWERING OF SNOWDROPS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. Arnott's note as to the flowering of Snowdrops (page 422) reopens an interesting subject on which I wrote you last year. I then propounded much the same theory as he now does, viz., whether the so-called autumn-blooming Snowdrops imported from the East do not, when acclimatised here, fall into line with the ordinary spring-flowering Snowdrop in time of blooming. When I wrote you last season, my clump of *Galanthus cilicicus* (which in the previous winter had bloomed in November) did not open its flowers till late in January; hence my feeling inclined to come to the conclusion named. This year, however, I noticed the first flower in November, and to-day (December 26) most of them are in bloom; so that my previous reasoning is upset. My experience, therefore, proves neither one thing nor the other, and I simply give it to comply with Mr. Arnott's desire to compare notes.

Rye.

F. H. C.

APPLES CORNISH GILLIFLOWER AND ROUNDWAY MAGNUM BONUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I quite agree with your correspondent "A. D.," on page 384 of the last volume, as to the merits of this fine dessert Apple. Some twelve years ago I took charge of a well-known Cornish garden, to which a large orchard was attached. Amongst many varieties of Apples—a good many of them local ones—were some fine old trees of Cornish Gilliflower. These had been neglected for many years, neither pruning nor cleaning having been attempted. Early in the autumn I had the main branches thinned out, retaining the best placed ones. The young bearing wood on these was also thinned, and the trees were freed from moss by syringing with limewash. The trees grew well the following season, making strong, pendulous shoots from 18 inches to 2 feet long, as is the habit of the variety, and the next season we had a good crop of splendid fruits. To fruit growers who may be contemplating planting this variety I

would strongly recommend them to plant standard trees only with not less than 8 feet stems. As the habit of the variety is drooping, it must also be borne in mind that the fruit-buds are mostly at the points of the young wood. The fruits should be allowed to hang late, as if gathered too early they shrivel and lose their flavour. I may say I have the variety doing well here. Young trees planted two years ago carried a few fine fruits this season.

Another little-known Apple of good flavour is Roundway Magnum Bonum. This fine old variety is, I fear, being passed over by more showy fruits of recent introduction. Its only fault as a dessert variety is its size, which is above medium, a fact which tells against it. It is in season during December and January. Mr. Bunyard in his fruit catalogue describes it as richer in flavour than Cox's Orange Pippin. Certainly it is of splendid flavour, and quite distinct from any Apple I know. The tree forms a fine pyramid on the Paradise stock, and rarely fails to carry a crop. I believe this Apple was put into commerce by the late Mr. Charles Turner of Slough, who also distributed Cox's Orange Pippin.

CHARLES PAGE.

Dropmore Gardens, Maidenhead, Bucks.

THE NANKEEN LILY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have been much interested in the illustration of the Nankeen Lily in your delightful paper THE GARDEN. I think it may interest you to learn my grounds for supposing it to be one of the oldest Lilies. General Coke's ancestors lived at their Trusley estate until about 200 years ago, when Trusley Hall ceased to be a family residence. Some thirty-five years ago I saw Trusley for the first time, and was surprised to find in a field near the Old Hall (which had dwindled to a farmhouse) a small patch of Lilies. The farmer's daughter said: "Yes, they come up every year. They have fawn-coloured flowers. This is where the old garden was. There is a Crown Imperial patch somewhere." We had all the roots sent us at the proper time, and have treasured the Nankeen Lily ever since. General Coke, having rebuilt here recently (somewhat in front of the old site), the descendants of the Lily have returned to Trusley, and are valued *habitués* of one of our herbaceous borders. The only difference I can see, judging by Mr. Blackmore's photograph, is that our Lilies have closer, scantier foliage. May I add, in conclusion, the very great pleasure and assistance we have derived from THE GARDEN in the past, and my determination to study its excellent advice even more carefully in the future.

CHARLOTTE COKE.

Trusley Manor, Etwell, Derby.

ANTIRRHINUM GLUTINOSUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In THE GARDEN of the 24th ult. your correspondent suggests that this beautiful little plant, hailing from the South of Spain, would scarcely be considered hardy in the Midlands and the North of England. This, however, is not the case. At Underley Hall, the charming residence of Lord Henry Bentinck, situated in the very heart of the Pennine Range, and where the rainfall is somewhat above the average of that of our Northern Counties, and at Kirkby Lonsdale, the plant grows well. I saw it recently in wild profusion within a few yards of the banks of the river Lune, and within a few feet of the plant were to be seen hundreds of icicles several feet in length. No doubt the secrets of its success here is the beautiful and clear atmosphere, for while London and the Midland Counties were enveloped in a dense fog, Underley Hall was bathed all last week in brilliant sunshine. Wall gardening is extensively carried on at Underley Hall. The wild garden in which the Antirrhinums were growing so freely has been constructed out of a piece of ground standing at an angle of about 45°, so that the walls are almost perpendicular. Here in these dry walls this little Snapdragon has found a genial home, and flowers profusely all through the summer and autumn. The hairs and the glutinous substance with which

the plant is clothed are no doubt a great protection in winter, and in summer-time shield it from the strong rays of the sun in its native home.

Southport.

W. H. STANSFIELD.

THE INDOOR GARDEN.

EUPHORBIA FULGENS (SYN. E. JACQUINLEFLORA.)

FEW winter-flowering stove plants are more useful when well grown than this. The pretty habit of growth, studded as it is with many bright flowers, creates a most pleasing effect, and for arranging among foliage plants, either in the stove or conservatory during the dull days of winter, it has few equals. When not given too much heat or moisture it will last for a considerable time in great beauty. After the plants have finished flowering the growths should be pruned back about halfway and placed in a gentle heat to break, and when the young shoots are about 3 inches long these should be taken off with the heel and inserted singly in 2½-inch pots in a light sandy compost. If placed in a handlight in the propagating house it will soon take root, when they should be removed to a shelf close to the glass in the same temperature, till the young plants become well established, after which these should be gradually hardened down to a cooler temperature, and when well rooted potted on into 4½-inch pots, in which they should flower. Use a compost of two parts good fibrous loam, one part peat, and one leaf-soil, to which should be added a plentiful supply of coarse silver sand, finely broken potsherds, and charcoal. The pots should be thoroughly drained. Grow on in a warm pit till active growth begins, and if desirable the points of the growths may be pinched out when about 12 inches high, when these will break freely and form pretty little bush plants, but I much prefer them grown with one long growth. During the summer months the best place for them is a cold frame in a fully exposed position facing south. The wood will then become thoroughly ripened and the flowers be more freely produced. Manure water should be given when in active growth every alternate watering, and the plants syringed twice daily in bright weather, morning and afternoon. By the middle of September remove the plants to an intermediate house, exposing to the influence of the sun as much as possible and near the glass, when much more satisfactory results will follow than if placed in a higher temperature. One of the chief rules in connexion with the successful culture of this Euphorbia is careful watering at all periods of their growth. These resent being overwatered, consequently a clear perfect drainage must be insisted on, and never apply water to the roots unless the plants are quite ready to receive it, or these will quickly present an unhealthy appearance, the foliage turns yellow, and the plants become worthless. Though by no means a new plant, it is not nearly so largely cultivated as it deserves to be, and having grown it somewhat largely for many years and found it to be most serviceable at this season of the year, both as a pot plant and for all uses in a cut state, including table decorations, sprays, and button-holes, with the hope it may prove as useful to others, is my reason for penning these notes on our mode of treatment.

E. BRCKETT.

Aldenharn House Gardens, Elstree, Dec. 24.

SMALL SELECTIONS OF PLANTS.

Six good winter-flowering *Pelargoniums*.—Countess of Dudley, bright red, with white eye; The Sirdar, scarlet; Mary Beaton, pure white; Lady Roscoe, lovely rich pink; Prince of Orange, orange-red; and Sir Thomas Haubury, deep crimson, the petals tinged with rich purple.

Six good winter *Begonias*.—Gloire de Lorraine, very tree flowering, rich pink; Winter Perfection, light pink, semi-double; Winter Cheer, with more red in its colouring, semi-double, very free flowering; Eusign, deep rose-pink; Mrs. Heal, a

large single rose-coloured flower; and Julius, double, bright pink, very free.

Six useful Chrysanthemums for cutting.—Tuxedo, bronzy yellow; Mlle. Thérèse Pankoucke, white; Framfield Pink, pink; Violet Lady Beaumont, crimson; Reiman, yellow; and W. H. Lincoln, yellow.

Best Apples for small gardens.—Dessert: Mr. Gladstone (August), Lady Sudeley (September), Cox's Orange Pippin (October–November), and Cockle's Pippin (Christmas). Cooking: Pott's Seedling (August–September), Stirling Castle (October), Bismarck (November–December), and Lane's Prince Albert (January). All these bear good crops regularly, succeed when grown in any form, and require very little pruning.

Best Pears for small gardens.—Petite Marguerite and Williams' Bon Chrétien (September), Conference and Louise Bonne (October), Durondeau, Pitmaston Duchess, Emile d'Heyst, Beurré Superfin, Belle Julie, and Fondante de Thirriot, (November), and Doyenné du Comice (November–December). The above are suitable for culture as pyramids, cordons, and wall trees.

THE KITCHEN GARDEN.

LESSONS FROM 1904.

VARIETIES TO CHOOSE FOR 1905.

IT is pleasant to be able to record that 1904 has proved to be a most successful year so far as the vegetable crops are concerned, for almost without exception all kinds have done remarkably well. I propose dealing with the various types in as brief a manner as possible, giving the names of the best varieties that have come under my notice. Many excellent but synonymous varieties are catalogued by the various seedsmen, or in many cases improved strains, but to mention all of these would be quite impossible in this article.

POTATOES,

which are unquestionably the most important of all the root crops, both early and late, have been very abundant and of excellent quality. Many of the older varieties have quite held their own in spite of the large number of new ones. For pot culture I have found nothing to equal Sharpe's Victor. It makes little top, and crops well. Both for frame culture and for planting in the open for early work, I regard Sir John Llewelyn as a great acquisition, and one of the best for exhibition and table use. It is a great cropper, handsome, and of good quality. Duke of York is also a very quick grower, handsome, and ripens early. Cigarette is a splendid second early white round, and either for exhibition or home use it is hard to beat. I feel certain that as this becomes better known it will take a higher place than it has hitherto done. Windsor Castle is, in my opinion, one of the very best yet raised for any purpose. I do not know its equal for cooking, and it is good on any soil. It should be planted and lifted early, as by so doing it will escape disease; a wonderful cropper when well planted. For main crops The Factor is, without doubt, a most excellent and reliable sort, and does splendidly on almost any land.

Though I am not in favour of coloured kidneys generally, I must include King Edward VII. It suffers little from disease, is a great cropper, very handsome, and of splendid quality. Up-to-Date is a grand variety, and still ranks as one of the best. I have seen some wonderful results this year. The quality is all one can desire; it is an enormous cropper, and the most handsome late sort I am acquainted with. Among the newer Potatoes I will mention two only which I am of opinion will take a high position in the near future. One is Sutton's Discovery, a most prolific sort, of rare quality, and a splendid disease-resister. The other is Duchess of Cornwall, which I regard as the finest Potato seen this season, and no one who is interested in Potato culture should fail to obtain it.

PEAS.

These were wonderfully good last year, and thanks to the weather and the raisers of new

sorts the season has been a very prolonged one. On November 17 last, at the Edinburgh show, I noticed one of the finest dishes of the Gladstone I have yet seen. The pods were large, of fine colour, and well filled. This was awarded, and rightly so, the first prize for any vegetable other than those named in the schedule of which a large number were shown. I am not much in favour of very dwarf varieties, but for forcing and where space is limited Carter's Forcing is capital. Daisy is undoubtedly one of the best varieties yet raised; it grows to about a height of 3 feet, and bears abundantly; it is robust, and of rare quality. Early Giant (Sutton's), Early Morn (Carter's), and Edwin Beckett are among the finest of second early sorts. All are of medium height, very handsome, and the quality leaves nothing to be desired. For mid-season use Alderman is a grand variety, so also are Carter's Model Telephone and Webb's Senator. For late supplies and general use Autocrat is most reliable. It withstands mildew better than any I know, and is a wonderful bearer, continuing to do so for a long period. Webb's Masterpiece is a great favourite here, and much resembles the above, but the pods are larger, and both are of fine quality. The Gladstone stands unrivalled as a late exhibition Pea, being large and very handsome in appearance, but in my opinion the flavour is deficient; nevertheless, it should be grown by all for late work. E. BECKETT.

(To be continued.)

THE BEST POTATOES.

A COOKING TEST.

SOME time ago it occurred to Mr. William Cuthbertson, of Messrs. Dobbie and Co., that a cooking test of Potatoes from different districts would be interesting. The co-operation of Mr. William Deal, Brooklands, Kelvedon, and Mr. H. J. Jones, Lewisham, London, was secured, and the trials took place at Messrs. Dobbie's Seed Farm at Mark's Tey, Essex, on Thursday, the 15th ult. It was decided that tubers should be got from Scotland, from Lincolnshire, and from Essex. A list of twelve standard varieties was agreed on, and six tubers, weighing as nearly as possible 6oz. each, were procured. In the case of novelties it was found impossible to procure some of them from all three centres. Messrs. W. W. Johnson and Son, Limited, Boston; Mr. T. A. Scarlett, Edinburgh; Messrs. William Davie and Co., Haddington; Mr. William Deal, Kelvedon; Mr. H. J. Jones, Lewisham; Mr. James Kerr, Dumfries; Messrs. E. W. King and Co., Coggeshall; and Messrs. Dobbie and Co., Rothesay, kindly supplied the required samples. To ensure the tests being judged by independent men, Mr. George Gordon, V.M.H., editor of the *Gardener's Magazine* and vice-president of the National Potato Society, Mr. H. Henshaw of Cambridge University Experimental Farm, and Mr. T. A. Weston, Postling, Hythe, Kent, were invited to judge. The cooking was done by Mr. Ireland, Messrs. Dobbie's manager. Each sample of the different varieties was cooked in a separate pot. They were steamed for a few minutes before being served. All were judged under numbers, the judges not knowing the names of the varieties they were dealing with or the district from which they came, except in the case of the first lot, which was Up-to-Date. This was adopted as a standard, 9 points being given to the best dish of that variety. Samples receiving 9 points and upwards were considered "Excellent," those receiving 7 and 8 "Good." The primary object of the trial was to ascertain if any varieties were "Excellent" from every district, as this would be some guide to raisers of new sorts. The remarkable superiority of the cooking quality of the Essex Potatoes was a feature of the trial. The Scotch samples invariably received fewest points. The judges suggested a trial in spring to find out if the Scotch tubers would then take a better place. They were altogether closer in the grain and flesh. The points awarded were as follows:—

Up-to-Date—Scotch, 2; Lincolnshire, 9; Essex, 7.
Evergood—Scotch, 2; Lincolnshire, 4; Essex, 6.
Royal Kidney—Scotch, 3; Lincolnshire, 5; Essex, 7.
The Crofter—Scotch, 9; Lincolnshire, 6; Essex, 8.
The Factor—Scotch, 7; Kent, 7; Essex, 9.

King Edward VII.—Scotch, 2; Essex, 9.
Northern Star—Scotch, 6; Lincolnshire, 2; Essex, 3.
Dalmeny Hero—Scotch, 9; Essex, 10.
Charles Fuller—Scotch, 5; Lincolnshire, 9; Essex, 11.
Empress Queen—Scotch, 5; Lincolnshire, 8.
Daniel's Special—Scotch, 5; Lincolnshire, 6; Essex, 9.
Davie's Warrior—Scotch, 5; Kent, 10.
Duchess of Cornwall—Scotch, 5; Lincolnshire, 8; Essex, 10.
Lin Gray—Scotch, 6; Lincolnshire, 5; Essex, 11.
Eldorado—Scotch, 2; Lincolnshire, 4; Essex, 7; Kent, 6.
Discovery—Scotch, 2; Lincolnshire, 2; Essex, 8.
Conquering Hero—Scotch, 6; Kent, 7.
Diamond—Scotch, 6; Lincolnshire, 5; Essex, 5.
Highlander—Lincolnshire, 6; Essex, 9.
Twentieth Century—Scotch, 5; Lincolnshire, 9.
Nobleman—Wales, 9.
Peacemaker—Scotch, 9.
The Provost—Scotch, 8.
King Edward VII. (Kerr's)—Scotch, 8.
Challenge—Scotch, 3; Lincolnshire, 7.
Hector McDonald—Scotch, 7.
Niven's Premier—Scotch, 9.
Uncle Sam—Kent, 8.
Vermont Gold Coin—Scotch, 7.
Dobbie's Favourite—Scotch, 10.
Table Talk—Scotch, 9.
Peckover—Cambridgeshire, 10.

NEW AND RARE PLANTS.

EUCALYPTUS FICIFOLIA.

THE Eucalypti are so commonly regarded merely as giant trees, whose flowers (sometimes insignificant) are of very little decorative value, that the general public is accustomed to consider them all as of one type, in a word, as the Eucalyptus, nearly always meaning the Eucalyptus globulus, the species which has spread to some extent in Basse-Provence and in Algeria, and whose appearance under cultivation caused considerable sensation about the year 1860.

But many other species of the genus have been introduced during the past thirty years, and these have been studied, especially by M. Charles Naudin, at Villa Thuret, Antibes. He has made them the subject of two important descriptions, in which mention is made of a number of new species.

Among those which produce flowers of truly ornamental effect, are the following: Eucalyptus robusta, calophylla, marginata, andreana (with its slender and numerous tufts), and the pink-flowered Eucalyptus leucocylon, &c.

None of these, however, in the beauty of the colour of their flowers is equal to E. ficifolia. This tree is not named in the descriptions of M. Naudin, who appears not to have grown it at Villa Thuret. It was, however, named and described long ago by Baron Ferdinand von Mueller, the celebrated botanist of Melbourne, Australia.

Eucalyptus ficifolia, the specific name reminding one of the leaves of some kinds of the Ficus genus belonging to the section Ficus elastica, grows on the banks of Broken Julet Estuary in the south-west of New Holland, and at the mouth of the Shannon on the West Coast, in a belt of forest land situated in the region of the coast, but not extending to the seashore.

DESCRIPTION.—Tree tufted, rarely more than 15 metres high. Bark thick and fissured. Branches rather strong. Leaves neatly petiolated, with the stalk of thick consistency like leather, not horizontal, but rather oblique, lanceolate oval, more or less narrowed and attenuated at the petiole, sharpened at the top. Inflorescence in multifloral bunches, calyx tinged with red, the transversal line of dehiscence at first indistinct, and often adhering even after the flower has expanded. The filaments of the stamens fairly robust, of a beautiful cinnabar red (occasionally paler in some flowers). Anthers small for the size of the flower. Style long and slender. Fruit $3\frac{1}{2}$ centimetres in length, a little less in width, very slightly ridged, lower orifice not contracted; valves at first flattened and convergent. Seed brown, furnished with decurrent attachment.

Eucalyptus calophylla is the only other species similar to the above, but it differs in the following respects: Its beautiful bright red flowers are of exceptional splendour, it does not attain so great a height, the bark is less fissured, and the leaves are

not so large, but the flowers are larger, with a reddish calyx, and the filets of the stamens are a superb crimson. The seeds are paler, and provided with a membranous appendix. Baron von Mueller introduced this magnificent species in 1860 into the Botanical Gardens of Melbourne, Australia, from which it has gradually spread to other collections. He remarks on the great beauty of this tree when in blossom in the forests in January and February before the buds have been plucked off by the parrots or other birds. We have seen it in flower at the establishment of M.M. Nabonnand frères, at Golfe Juan. It will prove an acquisition of the first importance for the gardens of the Mediterranean littoral.

ED. ANDRE, in *Revue Horticole*.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communication should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

CHRYSANTHEMUMS AFTER FLOWERING (J. Read). If your plants have gone out of flower you should cut them down to within a few inches of the soil in the pots. They can do no good by allowing the old stems and seared growths to remain longer. After cutting down as advised stand the pots with the old stools therein on shelves raised as near to the glass as convenient. In this way fresh young growths are induced to develop, and these are of a kind that make ideal cuttings. Cuttings, however, should not be of too stout a character, as they invariably fail or take a long time to root. Select, therefore, shoots of recent development that are of small to medium size, and you are likely then to be successful with them. Keep the ball of soil of the old plants just moist. Should any of them be dry when the plants are cut down give them a thorough watering, so that the whole ball of soil may become moistened.

CUTTING BACK RHODODENDRONS (E. M. M.).—The best time of the year to cut back Rhododendrons is as soon as possible after the harsh drying winds of March are past, as this allows the young shoots a good time to develop and ripen before winter. If one could ensure a mild March the end of February would for this reason be preferable. Rhododendrons, if in good condition, break freely as a rule from the old wood, but in any case you would have to wait two or three years before you got any flowers thereon. Owing to the close compact character of their fibrous roots, even old-established plants of Rhododendrons can be moved with less risk than most shrubs, though of course the operation needs to be carefully carried out. It may be done any time from November to March provided the weather is favourable. As the cutting back of your plants will entail such a long period without blossoms, we would suggest transplanting your specimens and grouping them as you mention according to colour. If the plants are very tall and bare a few dwarfier ones may be obtained for the outside or foreground of the group or groups. The summer after transplanting especial care must be taken that the plants are not allowed to suffer from want of water.

DETERIORATED VINES (Amateur).—Seventeen Vines in a house 40 feet in length are far too many. Single rod Vines should never be less than 3 feet apart, and that would allow of thirteen Vines in your house. But where there are two rods to a Vine, as is the case with most, it is evident that their main rods must be very much too close, and that decay is greatly aggravated by having such exceedingly long spurs to the rods, from which the

lateral or fruiting shoots annually break. Your best course is to cut out one of each of the twin rods at once, and if you can in each case get a strong shoot to break low down on each Vine to carry that up during next season in the hope that being well ripened in the autumn it may bear cutting back to some 3 feet in length, and thus form the foundation of quite a new main rod. Could that be done in each case you could in two or three years cut out every old rod, replacing them with new ones, the side spurs on which could be kept short by cutting the side shoots or laterals close back each year. If you were willing to sacrifice all hope of getting a crop for one season, you might even now cut back to about an inch in length every long spur or old lateral, thus compelling the rods to break close home and form new laterals. These would probably not fruit that season, but would no doubt, especially if pinched after four or five leaves were formed, make good buds close back for the following year. In hard cutting back these spurs you could touch over the cut surfaces only with a little painter's knotting. No doubt your Vines would be greatly helped if you can in the spring give the roots a moderate top-dressing of half-decayed manure, or if not that, then at once giving a sprinkling of Thompson's Vine Manure, scratching it in, and a further dressing of it next June.

SOWING SWEET PEAS (E. Shere).—No useful purpose can be served by making a sowing of Sweet Peas at this early season, seeing that you want to flower the plants outdoors in the ordinary way in the early summer. Have you any roomy glass structures in which you could flower a number of the better sorts in 9-inch or 10-inch pots? If so, there is no objection to your commencing at the present time with an early sowing. For the earliest displays outdoors, and in this climate of ours you cannot very well expect to have your plants in flower until the middle of June, except in favoured situations in the south of England. We think you had better defer your sowing until the latter part of February, at that period using just a little bottom-heat to encourage a speedy germination. By this means the resulting plants, after a proper hardening off process and subsequent planting outdoors, will give you a crop of blossoms in early June next.

CRIMSON JAPANESE CHRYSANTHEMUMS (J. B.).—The three best crimson Japanese novelties of the past season promise well for future shows, and you will be well advised to secure plants or cuttings at your earliest. The blooms are very large and handsome, and in our judgment eclipse all other kinds of this colour. They are as follows: Mrs. A. H. Lee, large spreading flower, rich crimson, with golden reverse; Mrs. T. Dalton, a deeply-built flower of a rosy crimson shade, with buff reverse; and Mrs. A. Arnold, another deep rich crimson flower of reflexed and even form. With this set your position next season should be much improved.

VINE CULTURE FOR AN AMATEUR (F. V. H.).—We should say the small house you name would enable you to grow a fair quantity of Grapes, and it would certainly be large enough for you to manage alone. The main consideration would be the preparation of the border. This, we presume, would be outside. Efficient drainage is most essential. If your garden is at all low-lying or the natural soil water-logged, you must be very careful to provide good drainage to the border. Mark out a border about 4 feet wide and as long as the structure of your greenhouse. Remove all the soil to a depth of about 3 feet, and place drain-pipes in the bottom, connecting these with a main drain. Over these place about 6 inches or 8 inches of rubble, broken bricks, or clinkers, and then some turf grass-side downwards. For the remainder of the border prepare a compost of maiden loam chopped up rough, some old mortar or lime rubbish at the rate of about one in six, and admix at the same time some well-rotted animal manure, also half-inch bones at the rate of a 6-inch potful to a barrow-load of compost. The whole must be well mingled together and then placed in the border, raising the latter pretty considerably above the

ground level. Sheets of corrugated zinc laid on the border will prevent undue saturation by rain or snow. As you ask us to name a good book that will aid you in your efforts of Grape growing, we unhesitatingly advise the late Mr. Barron's "Book of the Vine." You will find useful information contained therein that is most helpful to the amateur. It not only shows you how to prepare the borders, but also gives a detailed account of the cultivation of Grapes by one of the greatest pomologists.

CHRYSANTHEMUMS: SIX EASILY-GROWN JAPANESE SORTS FOR EXHIBITION (J. R. H.).—Good exhibition Japanese Chrysanthemums abound, but those of easy culture are not so easy to find. The subjoined list includes only those of a fairly dwarf to medium height, as those of a taller character present difficulties to many growers. You, as a beginner, may take in hand the varieties named below with every confidence. Under ordinary culture the plants should do well. Make up your mind when commencing the work of the new season—and this should begin at once—to pay the most careful attention to the smallest details of culture all through the growing season. Send to one of the well known specialists for cuttings or plants of the following varieties: F. S. Vallis, canary yellow; Mrs. J. Dunn, white; Mrs. George Mileham, rosy mauve; Mrs. Greenfield, rich yellow; W. R. Church, rosy crimson, bronze reverse; and Ernest Bettisworth, C.I.V., rosy purple.

CHRYSANTHEMUMS IN THE OPEN BORDER (Frank).—In many instances you would be perfectly safe in leaving the old stools in their flowering quarters through the winter. Some of the early sorts are more robust than others, and with the approach of the more genial weather of spring they will be seen pushing their growths through the surface-soil at that time. Should your object be to raise plenty of stock of the different sorts, we would advise you to lift the old plants without the least delay. And, whether you want only a few pieces of the less robust kinds, we think it would be unwise to leave them in the open border longer. If your soil is heavy, with a clayey subsoil, do not hesitate to lift the weaker plants, as there is some risk in such cases. In soil of a light and sandy character, with a gravelly subsoil, or conditions somewhat similar, there is much less risk. It is our practice each season to lift the plants after flowering, and replant the old stools either in frames or pits, or better still to plant them out in prepared soil on the greenhouse bench. Commence to propagate in January, inserting the cuttings as the days begin to lengthen.

WHITE TUFTED PANSIES (Eleonore).—What you really want are Tufted Pansies of the purest white kind. Of course there are many very excellent sorts, but in your case habit, and a free flowering tendency with the sorts, are items of importance. If you are to achieve success with these plants for the purpose suggested, you should see that the soil is of a rich and deep character. You cannot grow the Tufted Pansies successfully without good soil, and this deeply dug. Plant out in the early days of March, embedding each plant firmly. The sorts we are pleased to recommend are: White Beauty, a white rayless self, with a distinct creeping-like style of growth; Seagull, a pure white rayless variety of good quality; and Swan, a very fine rayless white self, and rather more robust than either of the others. This trio should meet your case. Plant White Beauty as an edging.

Answers to correspondents and reports.—Owing to pressure on our space this week we are, unfortunately, unable to publish several other replies to questions. These, together with reports of the Royal Horticultural Society's exhibition in their hall, Vincent Square, Westminster, on Tuesday, and various other meetings, which for the same reason we are also unable to publish, will appear in our next issue. We shall, as in the past, welcome reports of gardeners' associations.

*** The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

MISCELLANEOUS.

VILLA GARDENING.

At the invitation of the committee of the St. Stephens Literary Institute recently Mr. Richard Dean, V.M.H., delivered an address on the above subject to the members who mainly reside in the many villa residences built of late years in North Ealing. By way of introduction the lecturer said it was absolutely necessary there should be for the garden a period of the repose of winter, as it afforded opportunity to make alterations and improvements to transplant, extend, rearrange, &c. In the case of most villa gardens the tenant had little or no control over the composition of the soil of the garden, the subjects planted, and the method of planting. The general custom with the builder was first of all to sell the turf, then the loam below it, and the gravel, if any, and fill in with any refuse soil he could obtain, and then plant it generally with the cheapest trees and shrubs he could purchase. Such a garden presented many difficulties to the cultivator, and it was not to be wondered at so many failures resulted. The tenant had to take the garden as he found it, and do the best he could with it. Suggestions were made as to the improvement of the soil so as to secure better results. The garden has taught one lesson to every man from the time of Adam downward, which must be learnt and never forgotten, that the whole work of the gardener has been divided into two main things. One to prepare for, introduce, and cultivate the things he would have grow there. The other to remove and extirpate the plants he would not have grow there—the natural growth of weeds and useless plants. Garden walks were dealt with and the necessity of having a solid foundation, drained, covered with red gravel where procurable, and kept well rolled, firm, and free from weeds. The lawn or grass plat was next dealt with, which should be well drained, especially if water converges on the spot. Lawns were too often laid down with turves of coarse grasses, and were rarely satisfactory. A good sward could be obtained by sowing selected lawn grass seeds, the soil deeply dug, pressed down, and made fine on the surface, and the seed sown either in August or September, when with care the lawn might be used the following summer, or if the seed be sown in spring, then in the autumn following; but constant rolling and mowing, as necessary, had much to do with perfecting the sward. The fine growing Fescues and Poas, with some white and yellow Clovers, were the principal ingredients in a choice mixture of lawn seeds, and could be sown at the rate of three pints or so to a rod of crown. It was necessary to protect the newly-sown seeds from the ravages of birds. A story was told of an American who visited New and St. John's Colleges, Oxford, and was much struck with the beauty of the tender green of the well-kept lawns, and remarked to the old college gardener that he would like to have such turf as this, asking him how he managed to have it so perfect. "Well, sir," was the reply, delivered with quaint humour, "it's werry simple. We cuts it back close as ever we can, and we rolls it and cuts, and rolls it again for one hundred years."

What to plant was next considered, and mention was made of such flowering trees as the Almond, single and double-flowering Thorns, *Prunus Pissardi*, &c., a strong plea being put in for such Crab Apples as the red and yellow Siberian, John Downie, Transparent, and Dartmouth, which harmonises with other trees, affording blossom in spring and ruddy fruit in autumn. Among deciduous trees *Acer Negundo variegatum* and others were mentioned. Among flowering evergreen shrubs the *Rhododendron*, *Andromeda floribunda*, forms of *Berberis*, *Cratægus Lelandii*, with *Olearia Haastii*, *Veronica Andersoni* and *Traversii*, &c., the *Euonymus* and Golden Privet were also mentioned. Also some deciduous flowering shrubs, such as *Deutzia scabra*, *Forsythia viridissima*, *Philadelphus coronarius* (Mock Orange), the newer Lilacs, *Weigela rosea*, the Guelder Rose, *Pyrus*

Malus floribunda, &c. *Cytisus scoparius andrea-nus* was also mentioned among evergreen flowering subjects. For the walls of villas the *Clematis*, including the early-blooming *C. montana*, *Cratægus Pyracantha* on a sunny aspect, *Cydonia japonica*, *Jasminum nudiflorum*, *Ivies*, *Passiflora cerulea*, &c.

The employment of the Roses was strongly enforced as standards in forecourt gardens, and more especially for autumn blooming; the best Hybrid Perpetuals, Hybrid Teas, and Teas suited for the purpose were mentioned. Pillar Roses and pergolas were strongly recommended, and a few sorts named, such as *Crimson Rambler*, *Dorothy Perkins*, *Bardou Job*, *Himalaya*, *W. A. Richardson*, *Rêve d'Or*, &c. Among useful standard Roses could be mentioned *La France*, *Celine Forestier*, *Gloire de Dijon*, *Mrs. J. Laing*, *Liberty*, *Killarney*, &c. Instructions were also given as to the soil suitable for Roses, planting, &c., selections of suitable hardy plants, biennials, tender and hardy annuals, and suggestions made as to their treatment; a sketch was given of certain plants which might be planted to keep up the floral succession from January to September. Some suitable plants for the outside of windows were also mentioned, and a selection was given of those best adapted for room culture.

Various questions were asked as to the culture of Sweet Violets, suitable plants to cover unsightly buildings, the improvement of impoverished patches of the common *Lilium candidum*, how to trap slugs, &c., which were replied to; and on the proposition of Mr. Councillor Hulbert a cordial vote of thanks was passed to Mr. Dean for his address, which was pronounced to be of an instructive and interesting character.

INSECT PESTS AND DISEASES.

THE WINTER APPLE MOTH (CHEIMATOBIA BRUMATA).

How little the amateur fruit grower understands the value of fighting the destructive insects that haunt our fruit trees, and more especially those in old-established orchards, is surprising. When some three years ago we took over a neglected garden, where borders once bright with old-world flowers had been turned to the more practical use of growing Potatoes and Cabbages, we found the Apple trees equally neglected, standing knee-deep in rank herbage, and covered with moss and lichen. The trees were, however, beautiful with blossom in the spring, and well cropped with fruit as the summer waned. Then hundreds of Apples fell, pierced by the grub of the *Cheimatobia brumata*, and at the gathering half the crop was lost from the same cause. Directly the Apple harvest was over we placed grease bands round the trunks of all the trees—some fifty or sixty in number. These bands are made of grease-proof paper, which you can buy at any stationer's. They should be from 7 inches to 8 inches wide, and tied on firmly top and bottom with tarred twine round the trunk of the tree about 2 feet from the ground. Then they must be thickly and evenly smeared with cart grease, taking care none touches the bark, especially in the case of young trees. These bands must be looked to all the autumn and winter, so that the grease does not become dry, as one never knows the exact moment that the pregnant moth will choose for climbing the tree. She is a wingless insect, and so can only crawl up the trunk, and the grease will catch her on her way to the boughs, where, if not checked, she will eventually deposit 200 eggs or more as near as possible to the future buds. The grease must be freshened up again in March, for another enemy is then on the war path, again a wingless female moth. This is the March moth (*Anisopteryx æscularia*), and is equally destructive.

The result of our precautionary measures has been most satisfactory. It is now our third year. In the autumn of 1903, of course, "neighbour's fare" was ours, and we had no fruit, but this last

autumn one hundred bushels were gathered, and it is not exaggeration to say that though we are great consumers of that wholesome fruit, I have not found more than two or three Apples damaged by the grub. We certainly owe to the memory of that marvellous woman Miss Ormerod the continuance by every means in our power of the good work she began, and we should relax no efforts to carry out her directions for a crusade against our tiny enemies whose destructive powers have a giant force. To do this all serious gardeners should write to the Board of Agriculture for their most valuable collection of leaflets, sent gratis and post free. In these will be found practical remedies for every disease that garden plants are heir to, and weapons wherewith to fight our insect enemies unto death.

A. DE L. L.

SLEEPY DISEASE OF TOMATOES (FUSARIUM LYCOPERSICI).

DESCRIPTION, AND APPEARANCE OF PLANTS ATTACKED.

The 116th leaflet of the Board of Agriculture deals with the "sleepy disease" of Tomatoes, which, although known for some seasons in Great Britain, has acquired an increased importance among growers, owing to the extended cultivation of the plant in recent years. The plant may be diseased inside when quite young, but the outward manifestations do not necessarily appear at once. The first indication that the Tomato is affected is shown in the drooping of the leaves and their bad colour. If the root is split the woody portion is seen to be of a dingy yellowish brown colour, which becomes more marked if left open for half a day. When the plant has been attacked about three weeks the lower portion of the stem is usually covered with a delicate white bloom of mildew. Eventually the stem is covered with patches of a dull orange colour, and becomes very much decayed. The disease can always be identified by a brownish ring just within the bark at the base of the stem or thicker branches of the root.

The disease is due to a fungus which flourishes in the soil and enters the plant by the root. During its development it passes through three stages, the first of which usually lasts about a week, the stem at the end of that time being much decayed and covered with a gelatinous mass. During the last stage the spores are resting and preparing to attack the young plants another year, or whenever a suitable opportunity presents itself. The plant can only be attacked by the fungus in the last stage of its existence.

TREATMENT.

1. It must be remembered in the first place that diseased plants never recover, and therefore no attempt to save the plant is successful.

2. As the disease grows inside the plant it is useless to spray with a fungicide.

3. As the resting spores of the fungus live and thrive in the earth and attack the plant through the root the disease must be attacked in that quarter.

It is therefore recommended that:—

1. All diseased plants should be uprooted immediately the disease is noticed, and should be burned.

2. The soil in which the plants grew should be removed and sterilised by heat, or mixed with a liberal allowance of quicklime.

3. If the disease appears in a glass house, every part of the house should be washed with a solution of carbolic acid and water (one of the acid to twenty parts of water) after the soil has been removed.

4. If it is not practicable to remove the soil, it should receive a liberal dressing of gas-lime. This should be allowed to lie on the surface for ten days, and should afterwards be thoroughly incorporated with the soil. After this the soil should remain for at least ten weeks before anything is planted in it. It should be soaked with water once a week.

5. As much lime as the plants will allow should be mixed with the soil in which Tomatoes are grown, more especially if they are grown in the same beds during successive seasons.

6. The infected soil from a bed should not be thrown out at random, but should be sterilised by admixture of quicklime, and care should be taken not to bring it in contact with Tomato beds.

7. Only short-jointed sturdy plants should be used, and those should be fairly hard and the foliage of a dark bronze appearance. All spindly or drawn plants should be rejected.

8. The plants should be allowed plenty of air, light, and room for growth.

NOTES FROM THE MARKETS.

FLOWERS AT COVENT GARDEN.

VERY abundant have been the supplies of cut bloom through the Christmas season, and they seem likely to be maintained. Trade has not been quite equal to what might be desired, and prices have not gone up so much as they usually do at this season. The Christmas trade usually clears off the Chrysanthemums with many growers, but last Saturday saw them as plentiful, or nearly so, as they were the week before Christmas. Large blooms may be getting a little scarce, but medium-sized blooms in bunches are abundant and good, the bunches of twelve blooms making from 1s. 6d. to 2s. 6d. each. In whites Princess Victoria, Snowdrift, Mrs. J. Thompson, Mlle. T. Panckoucke, and Western King; in yellows Negoya, Françoise Pilan, Yellow Mrs. J. Thompson, Mrs. W. R. Riemann, and Allman's Yellow all are useful. In pinks Mrs. Felix Perrin (known in the market as Framfield Pink) takes the lead, and Messrs. Low and Co. of Uxbridge have a sport of a deeper shade which is very fine. Mme. Louis Charvet, in larger blooms, is very fine, but with some growers the colour is not quite so good. Mr. Henderson of Cheshunt, who first brought it forward, has it in fine form. In bronze Lord Brooke and Tuxedo are the leading sorts. Crimson are not now so good in colour. The best late sorts are Mathew Hodgson and Lady Violet Beaumont.

Liliums have been very plentiful, and for longiflorums about the highest price reached was 6s. per bunch of twelve blooms. On Saturday last good blooms could be bought for from 3s. to 4s. per bunch. Auratum has been very plentiful, also lancifolium album and rubrum. These come in large quantities from Messrs. T. Rochford and Sons, Limited, who also have a fine display of Azalea mollis from retarded plants; this makes about 1s. 6d. per bunch. Lily of the Valley from this firm, and also from Mr. Iceton of Putney, has been very fine, prices varying from 9s. to 18s. per dozen bunches. Forced Lilac from Mr. Drost of Richmond is good, making about 3s. 6d. per bunch. Poinsettias have been very abundant, coming from several growers. Mr. T. Child of Eltham had some very fine heads of bracts, which were selling at from 6s. to 8s. per dozen, which is much below what they usually make at this season. Euphorbia jacquiniæflora, in fine racemes, sells at from 2s. to 2s. 6d. per bunch. Callas have been very plentiful, the prices ranging from 3s. to 5s. per dozen blooms. Camellias (white) do not make the prices they did before we had the Liliums, &c., from retarded stock—at present about 2s. per dozen is the highest price obtainable—and Eucharis were making about 3s. per dozen on Saturday last. Tuberoses on stems make from 9s. to 12s. per dozen bunches. Gardenias are not quite so plentiful, but they do not go up much in price, 2s. to 3s. per dozen being the best prices made. The old double white Primula is not such a favourite as formerly, and goes slowly at 6s. per dozen bunches. Azalea indica alba, or Fielder's White, is plentiful, and from 4s. to 6s. per dozen bunches are the highest prices it reaches. White show Pelargoniums are very good from Mr. T. Dodd, but do not make high prices. Orchid bloom is in fair demand, Cattleya labiata reaching 12s. per dozen blooms, but there are some sold at much less. Odontoglossum crispum, Cypripedium insigne and other varieties, and Dendro-

bium nobile; these all make an average of about 2s. 6d. per dozen blooms. Carnations are very plentiful and prices vary much; some are sold as low as 1s. 6d. per bunch. The best are the American varieties; these make from 4s. to 6s. per dozen blooms. Enchantress, the very fine flesh pink, has gone up to 8s. per dozen; Mrs. T. W. Lawson, Sybil, Harry Fenne, General Maceo, alba, and Queen Louise. Roses are now rather scarce. Niphetos is the most plentiful; this makes from 2s. to 4s. per dozen blooms. Catherine Mermet and Bridesmaid go up to 5s. per dozen; Kaiserin Augusta Victoria about the same price. Mme. Abel Chatenay is a favourite, and this has made higher prices, going up to 6s. or even higher. There are a good many imported Roses on the market, and some of these look nice, but they drop so soon after they are exposed, except Safrano, which is a general favourite. Helleborus niger, the blooms seen in the market, are not of the best quality; medium blooms make from 1s. to 1s. 6d. per dozen. Tulips are very plentiful, the reds especially. Whites are also abundant; pink, yellow, and the apricot shade (Thomas Moore) make the best prices; 9d. to 1s. 6d. per dozen blooms has been about the average prices, but instead of being cut they are mostly taken in on the bulbs, which are grown in boxes of about two dozen in each. Orange blossom has been procurable for some time past at fairly moderate prices, but the supply may fall off at any time. Daffodils, single yellow trumpet, have been plentiful for some time; they make from 6s. to 9s. per dozen bunches. A few Telamonius plenus are already in. The prettiest things in imported flowers are the Ranunculus in crimson, amber, yellow, and red. These are remarkably bright, also the crimson with green centre. The pink Anemones are also coming over, and the Mimosa (Acacia dealbata), and there are several other nearly allied sorts seen. Some are even prettier than the ordinary Mimosa.

We get a very regular supply of Smilax (mediola asparagoides), Asparagus plumosus, Fern, and other foliage, and prices for these vary but little, though sometimes growers may waste some through the demand not being equal to the supply.

LATE NOTES.

Presentation to the Secretary of Udney Horticultural Society.—On the evening of the 27th ult. a large party of members and friends of the Udney Horticultural Society waited upon Mr. William Will, Mains of Pitmedden, the secretary of the society, for the purpose of making him a presentation on the occasion of his marriage. The presentation was made by Mr. James Duguid, who spoke in eulogistic terms of the services performed by Mr. Will to the Udney Horticultural Society. He then handed over the present, which consisted of a handsome marble clock and a purse of sovereigns. Mr. Will thanked the subscribers in feeling terms.

"Horticulture."—This is the title of a new gardening paper, published in Boston, Mass., U.S.A. It is well illustrated and attractively produced, so it should have a prosperous future. The first number contains some interesting articles, notably one about the large Azalea nursery at Bruges of Mr. Sander's, "Useful Ferns for Everyday Use," &c. We wish our contemporary every success.

Greenhouse Rhododendrons in flower at Kew.—A representative collection of the varieties belonging to the Javanese section of Rhododendrons has been planted out for some time in a bed forming part of the Mexican house at Kew. This, which forms the southern portion of the Temperate house, is kept decidedly warmer than an ordinary greenhouse, and these conditions seem exactly to suit this class of Rhododendrons. The plants there are at any season rarely without flowers, but perhaps at no time of the year do they appeal so strongly to one as in the depth of winter, when their bright-coloured blossoms stand out so conspicuously. Various tints are represented among them, but the most noticeable are the different shades of yellow and scarlet, some of

them seeming positively to glow during the half-light of a dull winter's day. These varieties are almost indifferent to fog, as befits a race of plants nearly all of which have been raised within the London area, for we are indebted to Messrs. Veitch for the members of this entire section, and their home has been at Chelsea for many years. The way they thrive planted out at Kew shows them in a new light, but even where such conveniences do not exist they may be well grown in pots, provided a few points are taken into consideration. In the first place, the epiphytal character of some of the species from which they have sprung should be borne in mind, hence dense masses of soil must not be crowded around the roots. Briefly, their cultural requirements when grown in pots may be thus summed up. Avoid pots too large, and in potting see that they are perfectly clean and well drained. The compost may consist of good fibrous peat pulled to pieces with the hand, and not sifted in any way. To this should be added a liberal sprinkling of rough silver sand, and for large pots a few nodules of charcoal broken about the size of Beans. In potting take care not to bury the stem of the plant deeper than it was before, and at the same time press down the new soil to one degree of firmness. A liberal supply of water during the summer is necessary, but though less is now needed the soil must always be kept moist. In warm weather the syringe may with advantage be freely used among the plants, as it not only improves their general health, but also serves to keep away thrips, which in a dry atmosphere are liable to attack the leaves.—H. P.

The Sea Buckthorn (Hippophaë rhamnoides).—The group of this shrub growing on the margin of the pond near the Palm house at Kew is, if anything, fruiting more freely than usual this year, every branch being smothered with showy orange-coloured berries. It is often found in England on sandy land near the coast, and in some parts of the south acres of ground are covered with it. It is very variable in height, being met with at any height from 5 feet to 18 feet, sometimes assuming the habit of a low dense bush, at other times having long sprawling branches, while occasionally it attains the proportions of a small tree. For the garden the latter is a very good way to grow it, for with a little training and pruning a trunk is easily formed. Such a specimen is to be seen near the Temperate house at Kew. When planting care must be taken to obtain both male and female plants, or there will be no fruit. If male and female plants are growing some distance apart a branch of the male should be taken two or three days running, when the pollen is ripe, and shaken over the female plant. The female flowers are very minute, but are in such profusion that a great many are sure to be fertilised, providing both pollen and female flowers are ripe. This plant is often called the Sea Buckthorn. Another species may be seen in fruit near the Temperate house at Kew. This is *H. salicifolia*, a native of the Himalaya. The fruits are orange, but smaller than those of our native species, and borne less freely.

The American Holly (Ilex opaca). As a change from the common Holly, *I. Aquifolium*, *I. opaca* (the American Holly) might well be used, for although it cannot be regarded as useful for general purposes as *I. Aquifolium* is, it is ornamental. It is widely distributed in America, being common from the Hudson River to Florida, and found in large quantities in the Mississippi Valley. North of the Hudson River it is found more rarely, attaining its northern limit in Massachusetts. In America it is said to grow from 30 feet to 60 feet high. Here it forms a large bush 15 feet or 20 feet in height. The leaves are somewhat like some forms of our common Holly, but are duller in colour. The berries are bright red and very showy. A variety is known with yellow berries, but the species is by no means so variable as *I. Aquifolium*.—W. DALLIMORE.

Cratægus Carrieri.—This is a very ornamental *Cratægus*, and one which carries its fruit much later than most of the others, making it a useful tree for garden decoration. It was described by M. Carrieri in 1883, and according to

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GARDEN WORK AND HEALTH.

NO one who pays the least attention to the ebb and flow of public taste can fail to note the ever-rising tide of the gardening instinct in all classes of English society. In striking contrast to many other pursuits the interest in matters horticultural flows on and on, but never does it ebb. There are few outdoor amusements—unless, indeed, they are bolstered up by fictitious excitements—of which the same remark can be made. The last thirty years have seen the wax and wane of many open-air games and occupations. Tennis and croquet, so absorbing in their day, have had their ups and downs. Bicycling—useful as it is—does not hold the position in public favour which it did a few years ago. Motoring, though just now in the ascending scale, may have given place in another decade—who knows?—to air-ships or some other new craze. The young and the strong may indulge in these and many more pastimes while health and strength last; then the wear and tear of the nervous system begins to tell upon them, and they drop behind in the race for distinction, while the weakly are left out of the running altogether. Doubtless all these in moderation tend to healthfulness of body and mind, but it is just at the point where all of them fail in their turn that gardening comes in and fills the gap, and happy is he or she who has a good foundation of experience to begin upon.

The reason why gardening will always hold its own is not far to seek. Nature—the Mother of Gardens—holds in her bountiful hands the inexhaustible gift of Life, and Horticulture is one of her chosen handmaidens to distribute the blessings which she is able and willing to bestow upon all who will work for them.

In many branches of Natural History destruction is bound to precede exact knowledge. The entomologist pins his beetles to the board. The ornithologist shoots his bird to make sure of its species. The gardener, on the contrary, cherishes the germ; his aim is not destruction, but growth and progress in the pursuit of practical knowledge, and the result of his work is living beauty. And while he toils to wrest her secrets from Nature, she rewards him, all unwitting, with the health of mind and body which comes of congenial occupation in the open air. It is true, in a measure, that the gardener must be born, not made, and that, just as we have met with

isolated cases in which the song of birds gives pain rather than pleasure, so here and there we may find those, so closely wedded to the life of towns, that a garden to them would be as a waste howling wilderness. But even such as these depend upon the products of the soil so long as they come to them without pains or trouble. The health and enjoyment, however, that follow on genuine work in a garden never come to such as these.

There is good reason to hope that the thousands of new members who have joined the Royal Horticultural Society in recent years, as well as the tens of thousands of amateurs who subscribe to the horticultural journals, are not mere idle followers of fashion, but have found out for themselves that health and peace and lasting happiness are bound up in a very real way with the honest and hearty interest they take in their gardens. We have heard an ere-while smart soldier, now an eminent horticulturist, declare that he had tried most ways of amusement, but had never found any pursuit so engrossing or so pleasurable as the cultivation and ordering of his garden. We have known delicate boys and girls, upon whom doctoring seemed to be thrown away, recover health and strength in tending the garden set aside for them to work in. We have been acquainted with veterans of both sexes who, to the last days of a green old age, have taken the liveliest delight in garden work and garden lore. And have we not all made friends with children who revel in their own little out-of-the-way plots where they may grub as much as they please, without let or hindrance?

It is for this reason we think the articles on "The Child's Garden" that are now appearing will be read with interest, and be the means of bringing rosy cheeks to our girls and boys.

Naturally, it is a sincere pleasure to the promoters of THE GARDEN to be able to help forward an occupation so health-giving and so fruitful in satisfying results—not only to individuals but far beyond all selfish aims—to the nation at large. We may be sure that no pursuit will give quicker or better returns in health and well being for thought and work and money expended than horticulture in any of its varied aspects. For in a well-ordered garden good work goes hand in hand with good play, and many another bright and pleasant thing, and we feel that there is no exaggeration in calling it, after John Parkinson's old-world phrase, "in very deed an Earthly Paradise."

NEW AND RARE PLANTS AND FRUITS.

THE following flowers and fruits were certificated by the various committees of the Royal Horticultural Society at the exhibition on the 2nd inst. They may, therefore, be considered valuable additions to the list of plants worth cultivating:

Chrysanthemum Market Gold.—This is a late variety that has flowers of moderate size, which should prove most useful for decorative work. They are of a rich golden yellow colour. The plants shown were about 4 feet high. From Lord Aldenham, Elstree, Herts (gardener, Mr. E. Beckett). Award of merit.

Pear Santa Claus.—An award of merit was given to this new Pear when shown by Colonel Brymer, M.P., Dorchester. It is evidently a good late variety. It bears a strong resemblance to Beurré Diel, and, although the parentage was not given, we should think it probable that Beurré Diel was one of the parents. The fruit is almost wholly covered with russet, and has a somewhat gritty flesh and sweet flavour. There are none too many good late Pears, so that this will doubtless find many admirers.

Apple Fenn's Wonder.—A handsome new cooking variety, marked by several prominent ridges, which give it a very uneven outline. It is a large fruit, richly-coloured on the sunny side, striped and flushed with crimson. An award of merit was given by the fruit committee. It was shown by the Earl of Stradbroke, Henham, Wangford, Suffolk.

Cypripedium westfieldense.—The conspicuous features of this new hybrid between *C. leeanum* and *C. polletianum superbum* are the tall, erect flower-stalks (they are quite 15 inches high) and the distinct clear colouring of the flowers. The dorsal sepal is beautifully marked with lines of rose-purple dots upon a blush ground that fades to white at the sepal edge. The petals and lip are shining ruby-brown; the former have a crinkled margin, which exposes to view the green colouring of the under-surface, and gives an added picturesqueness to the flower. This *Cypripedium* was shown by Mr. F. Wellesley, Westfield, Woking. Award of merit.

Cypripedium Memoria Juvvinghamiae.—The parentage of this new Lady's Slipper is not known, but *C. lathamianum* and *C. Boxalli* were suggested as the probable parents. The petals, which have indented edges, are so arranged as almost to meet at the lip; they, together with the latter, are dark shining brown. The dorsal sepal is heavily marked in the centre with purple-brown upon a green ground, leaving a broad margin of white. It was shown by Mr. F. Wellesley, Westfield, Woking. Award of merit.

Cypripedium Alcibiades.—*C. leeanum giganteum* and *C. M. de Curte* are the parents of this new hybrid Orchid, which is a very hand-

some flower. The dorsal sepal is large and dotted with purple upon a white ground marked with green at the base. The petals are horizontally arranged, and, together with the lip, are green, tinged with brown. Exhibited by Captain Holford, C.I.E., Westonbirt, Tetbury (Orchid grower, Mr. Alexander). Award of merit.

PRIZES FOR GARDENERS.

TO ENCOURAGE A GREATER KNOWLEDGE OF TREES AND SHRUBS.

WE have received a letter from the Hon. Vicary Gibbs, whose excellent lecture on the winter effect of some trees and shrubs will be fresh in the memory of those who heard it at a recent meeting of the Royal Horticultural Society, to the effect that he desires to offer a prize of *two guineas* for the best answers to the following questions. All gardeners in private employ are allowed to compete. It is expected that head gardeners where more than five are kept will not enter this competition. Mr. Gibbs's desire is to encourage an interest in trees and shrubs amongst young gardeners, and we hope this desire will be gratified.

QUESTIONS.

I.—Mention twelve effective shrubs flowering between September 1 and April 1.

II.—Mention a class of deciduous trees that bears heavy or frequent pruning very badly, and a class of conifer that bears it particularly well.

III.—Mention a *Spiræa* which has no external resemblance to other plants of that class, but rather simulates a *Spurge*.

IV.—If you had to plant six large deciduous masses of cheap, hardy, vigorous plants, indifferent as to soil, &c., suitable for cutting down every spring, so as to produce a good colour effect in winter, what would you select?

V.—Mention a common deciduous tree and a shrub of trailing habit of which the popular names suggest that they are of a completely different order to that to which they belong.

VI.—Mention six dioecious trees or shrubs.

VII.—Mention four hardy deciduous conifers.

VIII.—What deciduous trees stand wind best, and which worst?

IX.—What deciduous trees are most injurious and what least so to undercover?

X.—Mention twelve flowering shrubs other than *Syringas* suitable for planting in a large town, confining the answer to species, and not giving varieties.

XI.—Mention twelve flowering trees and shrubs with blue, purple, or violet flowers.

XII.—Write down in order, according to the safety with which they would bear removal, the following three sets of plants, assuming them to have been an equally long time undisturbed: (1) Oaks, Birch, Horse Chestnut, and Lime; (2) *Cupressus lawsoniana*, *Pinus austriaca*, *Juniperus*, *Quercus Ilex*; (3) *Cotoneaster microphylla*, *Laurustinus*, *Aucuba*, and *Holly*.

XIII.—If a specimen conifer were to lose the leader, through wind or other accident, how would you set about to repair the damage?

Answers should be sent to the Editor of THE GARDEN, 3, Southampton Street, Strand, London, and marked "Competition." These will be forwarded to Mr. Gibbs. The competition remains open until the end of the month.

We think so highly of the suggestion made by Mr. Vicary Gibbs, and the great practical value of the questions he has framed, that we have decided to add Two Guineas to the first prize, to give a second prize of Two Guineas, a third of One Guinea, and a fourth of Half-a-Guinea, and to institute monthly competitions dealing with various other phases of gardening. With the first issue of each month we shall offer similar prizes to those above; the scheme of questions is especially intended for young gardeners. The questions will be selected so that the answers, which will be published in THE GARDEN, may be of real value to all garden lovers. The winning replies, it is safe to assume, will contain the result of many years' experience, plainly put in a few words, and they cannot fail to impart much useful information to all readers of THE GARDEN. We shall make a point of keeping the questions seasonable, so that the replies will be particularly helpful at the moment.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

January 17.—Meeting of the Sevenoaks and the Redhill and Reigate Gardeners' Societies.

January 19.—Annual meeting and Election of Pensioners of the Gardeners' Royal Benevolent Institution, Mr. E. Sherwood in the chair.

January 24.—Royal Horticultural Society's meeting.

January 27.—Meeting of the Lee and Blackheath Gardeners' Society.

January 31.—Meeting of the Redhill, Reigate, and District Gardening Society.

February 1.—Sheffield Horticultural Society's meeting.

February 10.—Royal Gardeners' Orphan Fund Annual Meeting.

A Coloured Plate.—Next week a coloured plate will be given of Sweet Pea Gladys Unwin, from a drawing by Miss Gertrude Hamilton. An article on Sweet Peas will accompany the illustration.

Royal Horticultural Society.—At the general meeting held on the 3rd inst. forty-two new Fellows were elected, including Miss Violet Fellowes, the Rev. Canon Fowler, Major E. W. Gladow, Lieutenant-Colonel Hadaway, Major John Howard (Agent-General for Nova Scotia), Colonel the Hon. H. Legge, and Captain J. G. Thorold; and it was announced that the fresh elections during the past year had amounted to 1,383. It is hoped that a special effort will be made by the Fellows and all others interested in the society's welfare still further to increase the roll of Fellows of the society, the privileges of which are now so numerous and valuable. The council have already arranged for twenty-five more exhibitions being held, most of them in the new hall. They will include, in addition to a three days' show in the Temple Gardens, a Colonial fruit and vegetable show in March, a home-grown vegetable and British fruit shows in September and October respectively, and special flower shows held in

conjunction with the National Rose, Auricula, Tulip, Carnation, and Sweet Pea Societies. The next show will be held on Tuesday, the 24th inst., and the annual general meeting of the society will be held on February 14, at 3 p.m., on which day there will also be an exhibition of flowers, fruit, and plants.

A valuable bog plant.—*Chamælrirum carolinianum* came from America a few years ago, but is not in general cultivation. It may be likened to a miniature *Eremurus*, having thickened white roots, broad and prostrate leaves in rosettes as in the Dandelion, from which arise in May and June dainty spikes of white, cream, or pale yellow flowers about 1 foot high. The flowers are small and closely packed on the spike as in *Eucomis*, but the top invariably keels over as the spikes advance, and then the resemblance to *Eremurus* is complete. It is closely allied to the *Veratrum*s, and my own experience of the plant leads me to recommend it for bog or marsh planting. The white-flowered form is the better plant, but it is rare in collected specimens. Now that the world is being ransacked for hardy bog and marsh plants of horticultural merit the claims of this pretty *Chamælrirum* should not be overlooked. It is not difficult to grow, and it flowers freely when established.—G. B. M.

The Winter Green (*Pyrola rotundifolia*).—There are but few of the so-called Winter Greens that one could recommend as good garden plants, but the larger Winter Green (*P. rotundifolia*) is so easily managed that many would welcome a goodly "turf" of its pretty evergreen, *Shortia*-like foliage all the year round, while in early spring the dainty racemes of bell-shaped white flowers, resembling *Lily of the Valley*, are charming in their leafy setting. It is a plant one could freely use in association with *Cypripedium* in the shady peat-bog, or in any cool and sheltered corner where leaf-soil and moisture congregate, the foliage remaining perfect all the year round. It has a wide distribution over the Northern Hemisphere, but is rarely put to good and effective use in water gardening, for which it seems peculiarly adapted.—G. B. M.

A beautiful winter flower.—At the exhibition held by the Royal Horticultural Society in their hall, Vincent Square, Westminster, on the 2nd inst., there was nothing more beautiful than the group of *Euphorbia jacquiniæ* flora shown by Mr. E. Beckett, gardener to Lord Aldenham, Elstree, Herts. The long, slender, gracefully drooping shoots were just wreaths of orange-red bracts with a border of dark green leaves on either side. Nothing brighter or more delightful for room decoration on a dull winter day could be imagined. This is a very old plant, but I have never seen it so finely grown and effectively grouped as on this occasion. The centre of each shoot was a mass of the small brilliantly-coloured bracts, and the deep green leaves formed an admirable setting. On many of the plants there were bracts along an uninterrupted length of 2 feet. The chief essential to the successful culture of this plant is to get one long vigorous shoot, and to have it thoroughly matured. Only by doing this is it possible to have an abundance of bracts and healthy leaves—rivulets of orange-red between banks of rich greenery. In THE GARDEN last week Mr. Beckett gave full cultural directions.—Y. Z.

Pear Winter Williams'.—Everyone at some time or another must have tasted the Pear properly called Williams' Bon Chrétien, and popularly named Williams', and appreciated its melting flesh and pleasing flavour on a warm day in late summer or early autumn, for it is then the most popular market Pear. A novelty in the shape of a Pear, called Winter Williams', was shown at the Royal Horticultural Society's meeting on the 2nd inst. by Messrs. James Veitch and Sons. Its flavour is exactly like the earlier Williams', none of the sweetness or juiciness appears to have been lost. In appearance, however, the new fruit is different, owing to its hybrid production. It is the result of a cross between Williams' Bon Chrétien and the well known late Pear Glou Morceau. In shape it resembles the latter a good

deal; but the skin is yellow, while that of Glou Morceau never becomes a good yellow, even when ripe. The name of this new Pear will doubtless ensure its being sought after, and time will prove whether or not it is as valuable a late sort as its near relative is an early one.—Y. Z.

Planting fruit trees.—At a time when fruit trees are being planted it may not be amiss to call attention to a method that has recently been practised in some parts of Germany with, it is said, conspicuous success. On strong clay soil it is known that the roots of trees often suffer through lack of air, and this difficulty may be largely avoided by interstratifying the soil beneath the roots with layers of hedge brushings or similar material. A hole 2 feet to 3 feet deep, and twice this in width, is first made, in the bottom of which some 6 inches of brushings are placed. On this a layer of soil of similar depth is deposited, then another layer of brushings, and, finally, the tree is set in and secured in the usual way. Trees so treated are said to make very vigorous growth, and to have great power of resisting drought and other prejudicial influences.

British Gardeners' Association.—Mr. H. A. Pettigrew writes from St. Fagans, Cardiff: "I have been asked by the executive of the British Gardeners' Association to call together a meeting of the gardeners of this neighbourhood, to discuss the advisability of organising a branch of the association in the Cardiff district. I have accordingly arranged for a meeting to be held on Monday next, at 7.30 p.m., in the Grand Jury Room, Town Hall, when Mr. R. Hooper Pearson (Sub-Editor, *Gardeners' Chronicle*), one of the members of the executive, with other local gardeners, will address the meeting. S. Treseder, Esq., F.R.H.S., has kindly consented to take the chair on this occasion. As it is desirable to have this matter thoroughly discussed and understood, it is hoped that all interested will make an effort to attend."

The Gardeners' Royal Benevolent Institution.—The annual friendly supper will take place after the annual meeting and election, on Thursday, the 19th inst., at the Covent Garden Hotel (adjoining Covent Garden Market), Southampton Street, Strand. The chair will be taken at 6 p.m. by Mr. Edward Sherwood (of Hurst and Son).

"Protection of Native Plants."—A lecture with this title was read by Mr. Robert Tracy Jackson before the Massachusetts Horticultural Society. Mr. Jackson says: "Plants are much reduced in number by the thoughtless picking in unreasonable quantities and the too often unnecessary pulling up by the roots, when the upper part, or flower, is really the only portion desired. Frequently the interest seems to be to gather as many as possible, and the fact of rarity or exceptional beauty may act as a spur to induce the gathering of all that can be found. The principle that should be urged is to gather in moderation; always to cut the stem, not tear it off; never to pull up the root unless for transplanting; and, if there is reason to believe that the plant is rare, to leave it to increase its kind by seed and root, that in the future others may enjoy its presence."

Veronica Traversi.—I think the dimensions of one of my two large plants (I have many others from seeds and cuttings) may interest your readers—height, 8½ feet; circumference, 36 feet. No frost—and we have it severe at times—has ever injured a leaf of it, while most of the other varieties either are punished or killed in this garden.—J. H. POE, *Riverston, Nenagh*.

A beautiful white Heath (*Erica gracilis nivalis*).—This pretty Heath, which was given an award of merit by the Royal Horticultural Society in October of 1903, is a form of the well-known *Erica gracilis*, from which it differs in the colour of the blossoms, those of the new variety being almost white. As *Erica gracilis* itself is such a popular autumn and early winter-flowering Heath, it is more than probable that the new comer will be equally appreciated, particularly if the slight suspicion of colour will tone down, as it probably will under cultivation. The

white variety of *Erica hyemalis* is now an established favourite, and there is no reason to doubt that of *Erica gracilis nivalis* the same will be said in a few years.—T.

A white Winter Heath.—Some forty years ago Cape Heaths were in the zenith of their popularity. In the nursery where I served my apprenticeship about 150 kinds were in cultivation, and all of them were more or less grown in private gardens. Most of these species and varieties have dropped out of general cultivation, only a few being really popular nowadays. The graceful growth and quiet beauty of *E. hyemalis* render it very useful for general decorative purposes—as a fact, we have nothing like it among winter-blooming plants. Half a century ago the Heath was largely grown for the London markets. It is even more extensively grown at the present time. Some few years ago the variety *alba* declared itself, and has deservedly become very popular. The Winter Heath is so easily grown that anyone with a fair knowledge of plant culture may take it in hand. After blooming it should be cut back, and when new growths are pushing repot, using really good peat. Keep rather close for a time, and later on get the plants into the open air until the middle of September.—J. CORNHILL.

Autumn tints in Lancashire.—In Lancaster we think that the autumn tints have been brighter than we have seen them locally since 1887, in which we agree with "T. A.", Cirencester.—K. A. ROBINSON, East Road, Lancaster.

Rainfall in 1904.—The following is a report of the rainfall in The Gardens, Hampton Manor, Warwickshire, during 1904:

Month.	No. of Days on which Rain fell.	Total for Month. Inches.
January	21	2.80
February	22	4.18
March	17	1.63
April	12	1.02
May	17	1.99
June	9	0.52
July	11	2.54
August	14	2.26
September	9	1.18
October	13	1.04
November	11	1.47
December	15	1.94
Total for the year	171	22.57

This was 10.50 inches less than last year. Highest temperature in shade, August 3, 86°; in sun-heat, August 3, 132°. Lowest, November 23, 7°.—NEIL SINCLAIR.

Colour outdoors in winter.—When flowers are things of the past and leaves are few the garden usually presents a dismal appearance, although there is no reason why this should be so. There is beauty in berried plants, in coloured stems, and even in evergreens. With a judicious selection of these the garden in midwinter would be far brighter and more attractive than it often is. To take the commonest of all berried plants, *Crataegus Pyracantha*, or *Pyracantha*, as it is familiarly known, the berries of orange and red nesting among the small, dark green leaves, will form a delightful bit of colour on house or garden wall from late autumn until early spring. Among the red-berried *Cotoneasters* there are several valuable plants for garden decoration at this time of year. Two of the best are *C. Simondsii*, which makes a big bush, and bears large dark red berries in quantity, and *C. horizontalis*. This is of spreading, almost creeping habit, with numerous branchlets arranged horizontally and forming a fan-like growth. Upon these the small bright red berries are produced profusely. With the winter sun lighting them up they have a delightful effect. The *Pernettyas*, perhaps the most beautiful of all hardy-berried plants, too, are sadly neglected. What can be more attractive than a bed or a group? The colour of the berries varies from purple through shades of red and pink to white. The Mountain Ash has a characteristic brightness that should find a place for it in every garden where winter beauty is sought after. Among plants with coloured stems the Willows and the Dogwoods deserve to be widely planted. Masses of them brighten the landscape wonderfully at this time of year, and if they are planted by the waterside so

that their reflection shows they have an added beauty. The Moonlight Bramble, with stems that look just as though they were whitewashed, and on a moonlight night are weird and ghostlike, makes a most distinct feature.—Y. Z.

Mr. David Walker, Kilmarnock.—Mr. David Walker, the head-master of Bentineck School, Kilmarnock, who is well known as a very successful exhibitor of Carnations at the English shows, and is one of the best Scottish cultivators of the show Carnation and Picotee, was appointed a short time ago by the School Board of Kilmarnock to be head-master of a new school then in course of erection and called the Loanhead School. Mr. Walker, being about to enter upon his duties there, the staff and pupils of Bentineck School resolved to make Mr. Walker a present in token of the high esteem in which they held him. On the evening of the 22nd ult. Mr. and Mrs. Walker entertained the staff, and the opportunity was taken of presenting Mr. Walker with a handsome gold watch. The presentation was made by Mr. James Richmond. The following inscription is on the watch: "Presented to David Walker, Esq., Head-master Bentineck School, by the teachers and pupils, on his promotion to Loanhead School."

Conference on early-flowering Chrysanthemums.—Through the executive committee of the National Chrysanthemum Society it was proposed at their last meeting to hold a conference this year on the occasion of the October show at the Crystal Palace. A sub-committee was appointed, and they are already considering on what lines the conference shall proceed. There is need for a supreme effort of this kind, as there is still so much to learn about these charming autumn-flowering plants. Eighteen years ago little was heard of really good Japanese sorts; but the early varieties have greatly increased. Although catalogued sorts to-day may be thought to embrace all that is required this is not so. Each season sees the acquisition of quite a number of first-class novelties, and they have the effect of relegating to the rubbish heap many old and one time much-cherished sorts. This is inevitable in the march of progress that has been going on for some time, and the one cheering fact in connexion with the change is that the seedlings of English raisers are eclipsing those of Continental origin. The past season, however, has given us many beautiful novelties of French introduction, and for these we should be grateful. The Chrysanthemum as a garden plant is what is most to be desired, and in demonstrating its undoubted value in this direction the conference should render timely service.

Note on Begonia Gloire de Lorraine.—Mr. E. Lloyd Edwards sends a photograph of this beautiful Begonia, showing a very fine plant, but, unfortunately, it was not suitable for reproduction. With it was the following note: "The fine plant shown in the photograph was grown by Mr. Gitsam, gardener to Captain Tottenham, R.N., Lythouse, Torquay. He is particularly successful in the culture of this beautiful Begonia. This plant took first prize at one of the fortnightly meetings of the District Gardeners' Association in October. It was then one year and nine months old, having been struck from a leaf in January last year. It measured 2 feet 6 inches in height and also in width, and was shown in an 8-inch pot. It was a mass of bloom, and had never been pinched back."

Primrose Miss Massey.—The raiser of this brilliant-coloured Primrose is Mr. Herbert Massey. It came among some seedlings, and Mr. Massey, struck by its colour, propagated it, and in recent years he has sent very large numbers of this variety to places at home and abroad. It is not nearly so free of bloom as some other single Primroses of this colour, and it betrays a tendency to throw up flower-scapes bearing twin blooms. It is seen at its best when grown under glass, then it produces ample foliage and brilliant blossoms. I have found some difficulty in cultivating it with success in the open near London, and I have tried it in heavy and light soils. One peculiarity of this variety is that it rarely produces seeds. Mr. Massey states that it does not produce any seeds in Cheshire.—R. D.

THE FERN GARDEN.

NEW FERNS.

DURING the year 1904 the number of new Ferns recognised by the floral committee of the Royal Horticultural Society was somewhat limited, and there was no really startling novelty among them. The following received either a first-class certificate or an award of merit.

Pteris Hilli.—A fine bold-growing *Pteris*, somewhat suggesting the Australian *Pteris umbrosa*, though the new comer is said to hail from Brazil. The fronds are particularly thick in texture, and of a deep bronzy green tint. They are unusually glossy on the upper surface. From its stately appearance it is undoubtedly destined to become popular for decorative purposes when better known. Award of merit, February 23.

Cyrtomium Butterfieldi.—Apparently a form of the Japanese *Cyrtomium falcatum* (*Aspidium falcatum*), a well known cool house, or in favoured spots, hardy Fern. It is remarkable for the frilled margins of the pinnae, particularly towards the points. Award of merit, February 23.

Lomaria Mayii.—Under this name a fine seedling form of *Lomaria ciliata* was given a first-class certificate on May 3. It is a particularly bold-growing Fern, that bids fair to make a much larger specimen than the typical *L. ciliata*. From that well-known kind it also differs in its broader and longer pinnae and more graceful appearance. The colour is a pleasing rich green.

Pteris cretica capitatum.—There are now so many crested varieties of *Pteris cretica* and *P. serrulata*, as well as the numerous intermediate forms, as scarcely to leave room for another. This one is, however, decidedly pretty. It is of rather erect growth, and each division of the fronds is terminated by a large cockscomb-like crest. When shown by Mr. H. B. May of Edmonton on May 17 it received an award of merit.

P. Binoti.—Though said to have been imported from Brazil, this may be a seedling form of *P. (Doryopteris) palmata*, which in some respects it resembles, though in others the singular *P. ludens* is suggested, particularly in the difference between the fertile and sterile fronds. The latter, which are at the base of the plant, are almost triangular, in some cases with slight basal lobes, while the fertile ones which overtop the others are twice divided. The colour is a deep shining green. This was the only Fern to receive an award by the committee at the Temple show.

Platynerium alcinorne Mayi.—The only occasion of a *Platynerium* being recognised by the Royal Horticultural Society was when *P. Veitchi* was given a first-class certificate eight years ago. On November 29 last *P. alcinorne Mayi* received an award of merit. As suggested by the varietal name, it was raised by Mr. H. B. May of Edmonton, so celebrated as a successful cultivator of Ferns in general. It is a seedling from *P. alcinorne majus*, but is altogether a more graceful plant, owing to its drooping tendency and the longer divisions of the fronds. By the lover of these quaint but charming Ferns this will no doubt be much sought after. T.

THE LILIES.

(Continued from page 3.)

LILIUM PARDALINUM VAR. PUBERULUM (Hort.) is a small-flowered form of tall growth, with the leaves aggregated into whorles and very pallid; the flowers are 3 inches across, and the reflexed petals are coloured pale buff, the extreme tips alone coloured pale red. Not common in cultivation. Flowers in July. A connecting link between minor and pardalinum.

There are numerous forms of pardalinum in cultivation in addition to the foregoing, but the majority of those we have examined may

be referred to one or other of the forms described. It varies considerably as a wilding, and still more from seeds, whilst soils exercise a remarkable influence in the colouring of this Lily. American florists appear to have forms quite unknown in this country. These Panther Lilies constitute a very important group of easily grown garden plants that one could recommend for more or less informal planting by waterside. Many of them occur as wildings in pasture and cultivated fields. All are found in damp, low-lying situations.

This group can be recommended for extended garden use. Their easy culture, freedom of growth, and love for moist soils suggest that the best places for them are the banks of waterways, the cool plant border, the marsh or bog garden, and the type plant succeeds admirably amid grasses semi-naturalised in the open clearings of woods where the soil is damp and rich in leafy deposits. It thrives in ordinary loam, but prefers a liberal admixture of peat and leaf-soil in the early stages, mainly to act as a sponge for the retention of moisture. The forms *Michauxi californicum* and *angustifolium* are better grown in the bog garden, for these inhabit marshy places, and will grow also under shade. They have no stem-roots of importance, but the roots issue from all surfaces, and these will travel anywhere to obtain moisture.

The open country also seems necessary for these forms. They are the first plants in a town garden to show the influence of smoke and sulphur in the atmosphere. We have grown *L. pardalinum* well in clay soils, and we think this is the better plant of the whole group for general purposes. They can be well grown in pots provided they are supplied with plenty of water in the growing season and furnished with roomy receptacles. They cannot be forced, as the stems attenuate and bend over with the weight of flowers. There are many places in most gardens where the Panther Lily and one or other of its forms will grow well. They are an excellent type of Lily—graceful in growth, and the beautiful flowers, borne on long foot-stalks, are admired by every one.

(To be continued.)

CHRYSANTHEMUMS.

YELLOW JAPANESE VARIETIES.

THE season that has recently come to a close is not remarkable for the large number of Japanese novelties of a yellow colour that have merited award. Though the number of really good sorts is perhaps small in comparison with other years, their quality is undoubtedly good. First-class yellow Japanese varieties are always a telling factor in scoring, no matter whether the blooms be exhibited on the orthodox green-painted boards or by the increasingly popular method of displaying them in vases. The varieties that have come under my own observation during the past season which call for special notice are the following:

Mrs. Chas. Davis.—An English-raised seedling of great promise, and the result of a cross between Japanese varieties *Duchess of Sutherland* and *J. R. Upton*. In many respects the new sort much resembles the former both in form and colour. The petals are long, broad, drooping, and curling, building a lovely bloom of high quality; the colour, rich shade of orange yellow, and most effective. First-class certificate, National Chrysanthemum Society.

Leigh Park Rival.—Another orange yellow Japanese bloom, shaded bronze from buds secured later than most others, the petals long and drooping, building a bloom both broad and deep. First-class certificate, National Chrysanthemum Society.

Mrs. Eric Crossley.—An English-raised seedling of much promise. As an exhibition variety it will take a high place. The petals are long and stout, and of medium width, building a bloom quite 8 inches deep and of equal breadth, the colour, soft canary yellow, some say pale yellow. The blooms open well from a natural break and first crown bud selection. An improved *J. R. Upton*.

Mrs. Frank Penn.—Little is known of this variety. Some blooms were submitted to the National Chrysanthemum Society's floral committee early in November last, and a wish was expressed to see the variety again. It is a glorious rich yellow flower, with fairly broad petals of erect character, building a reflexed bloom of good quality.

Lady Curzon.—This flower is not one of the largest in size, yet quite large enough for exhibition. The petals are long and drooping, building a bloom of graceful form. A most effective flower of rich canary yellow colour, and much admired.

Model.—As exhibited at the Crystal Palace show in November last, this novelty has much that is interesting and promising. The petals of medium width, pleasingly waved and curled, building a bloom of splendid proportions. Colour rich buttery yellow, tinted bronze in some instances.

Beauty of Leigh.—This fine variety was distributed last spring, and has been well exhibited in several instances during the past season. The petals are long and of medium width, incurving at the tips, building a large flower of even form. Colour rich deep yellow. The plant is very tall, but is of easy culture.

Chrysanthemiste Montigny.—One of the very best of M. E. Calvat's introductions of last spring. Several of the trade have exhibited this fine novelty in good form, and exhibitors of high standing have found the blooms very serviceable. Colour pale straw yellow, slightly flushed red, from a late bud selection. In some instances the blooms have developed quite a canary yellow colour. Petals broad, fluted, and incurving. Good habit.

Roi d'Italie.—Another of M. Calvat's novelties. This is a very fine Japanese flower of promise, with petals of incurved Japanese form. Colour deep canary yellow, with a deeper coloured reverse. A bloom of deep build and in capital form at the Crystal Palace show in November last.

Yellow Mme. Nagelmackers.—Little notice appears to have been taken of this yellow sport from the white *Mme. Nagelmackers*. The splendid exhibition quality of the parent variety, as seen at the Crystal Palace in November, 1903, should ensure much popularity for the sport.

Souvenir de Mme. Buron.—This is a canary yellow sport from Miss Elsie Fulton (syn. *Princess Alice de Monaco*). So well known is the parent variety for its beauty and exquisite form that the mention of a sport of the colour herein described is sufficient to ensure for the new sort extended culture.

Mrs. W. Knox.—An Australian variety that has much to commend it. The petals are long, narrow, and drooping, building a large, graceful flower, of good quality and of considerable promise for exhibition. Colour rather deep yellow, sometimes tinted bronze on a late bud selection.

Mrs. M. J. Darcy.—A large and attractive flower of Antipodean origin, petals long and curled, pleasingly drooping. Colour rich clear yellow.

Mary West.—This is not quite so new as some of the other sorts in this list. It is a large, massive flower of good quality. Colour in the early part of the season, a good yellow; later flowers are shaded reddish bronze.

Mrs. W. Duckham.—A refined Japanese flower, with narrow, twisted, and curled petals, building a bloom that some regard as similar, in many respects, to Miss Nellie Pockett. Colour golden yellow, not infrequently flushed red.

D. B. CRANE.

ARRANGING FLOWERS AND FRUIT.

(Continued from page 9.)

MUCH more should be done in the way of well-disposed groups of fruit on our dinner-tables. In the late summer, when there are Melons, Grapes, Pears, Figs, Peaches, and Plums, it is desirable to

arrange some of these on a large dish of silver, brass, pewter, or china. Fruit so arranged becomes a delightful picture, even more pleasant to look at in the middle of a dinner-table than a bowl of flowers. The amount of fruit that would fill four ordinary dessert dishes seems to increase in volume when so arranged; it gains greatly in beauty, and gives off a delightful scent. If anything brighter than ordinary Vine leaves are wanted to complete the dressing, those of Virginia Creeper are excellent. Vine leaves should be chosen rather small and pale in colour; as the season advances some may be found out of doors on some of the Sweetwater Grapes that are charmingly streaked and mottled with golden yellow; and coloured Blackberry leaves—so Vine-like in form—may be found in hedge and thicket. G. Jekyll.

FLOWERS OF MYSTERY.

WHAT an irresistible charm attaches to flowers that bloom while others sleep! They may have no striking beauty, no sweet fragrance, happy memories may not cluster round them, yet by their mystery they attract us, by their loneliness they appeal to us. We wonder why, like other flowers, they do not bud with lengthening days in spring, blossom beneath the summer sun, fade with autumn's glorious tints, and take their long rest amid winter's frost and snow. They live a life apart, flowering on a cheerless earth, with leafless trees for shelter; their breath is chill December's blast. They are outcasts from Flora's world, frail symbols of passive resistance against a relentless destiny that gives them snow for rain, condemns them to eternal loneliness—life among the sleeping, sleep among the living.

They must open on naked shoots, they may not know the sweet companionship of leafy twigs, never feel a sunbeam's kiss or taste one drop of summer's dew. Howling winds proclaim their birth, they fade to death at dawn of spring, and June's soft breezes chant their burial song. The same cold hand that drives most flowers to death brings these to life. What mystic spell compels this magic? The dread touch that sends others shivering to their sleep, to the warm depths of mother earth or the safe shelter of fast-closed bud, until spring's gentle showers and strengthening sun shall bid them wake again, makes barren shoots bright wands of winter blossoms, the ground a carpet of their posies.

It cannot be from choice that such frail gems of Nature blow with cruel frost, with treacherous snow that glides to the ground in softest fall, hiding black deceit beneath its whiteness and death within its seeming purity. In a warm embrace the flowers are lulled to wakeless sleep—smothered by the stifling mantle of fallen flakes. Can it be that once, in ages long gone by, these lonely ones transgressed the law of plants and flowers and compassed their life's tragedy—brought forth the grim decree that they must bud and blow in solitude? Dark, indeed, must have been the wrong to bring a sentence so severe. It is a cruel fate that sends the fragile-fashioned Christmas Rose to lift its flowers through frozen ground, that makes the Jasmine open on leafless shoots and fade to oblivion at the glad New Year. The Winter Sweet must waste its fragrance on coldest air, and yellow cups of Aconite peep from green frills in vain for one sunray, while the Thorn of Glastonbury holds high its flowery branches and hurls defiance at earth's bare face and heaven's chill skies.

But some suggest that winter flowers are pity's messengers, sent from that brighter world where flowers and leaves abound, to lead a life of loneliness, to bring us cheer. This is a mystery we cannot fathom, a veil we may not lift. But whether as aliens, outcasts from a pleasanter world, where leaves grow green in spring and die content at winter's first dread touch, or as symbols of a deep, wide love that takes no thought of self, we cherish these frail blooms of mystery, we hail them with delight, watch each unfolding bud and opening petal. We shower upon them such full love and joyous grati-

tude, bid such hearty welcome and take such sad farewell as must make their sweetest memories glad regrets. H. H. T.

THE FLOWER GARDEN.

A NEW HARDY FLOWER OF BLUE COLOURING.

UNEQUALLED for effect in the herbaceous border is this splendid introduction, being, indeed, the finest of all the larger blue-flowered perennial plants. This, in the face of the handsome family of the Larkspurs or Delphiniums, with its countless fine named varieties, may appear a rash statement, but anyone who has seen this Alkanet at its best will admit that it possesses attractive qualities of the very highest order. It is so far superior to the type that it might well pass for a distinct species, but the fact that it does not come true from seed, as far as my experience goes, and that the seedlings have a tendency to produce flowers as small, or nearly as small as, those of the common type, tend to prove that this is its parent. The flowers of the type are so small that it is not a sufficiently effective plant for the herbaceous border, but the blossoms of the Dropmore variety are nearly $1\frac{1}{2}$ inches across, and are borne in such profusion

that the whole plant becomes a sheet of deepest blue. A vigorous specimen will attain a height of 6 feet or 7 feet, with a diameter nearly as great, and if not shut in and shaded by other plants a specimen will be, from the ground level to the topmost shoot, a cloud of blue that invariably attracts universal admiration. Were its flowers short-lived, its beauty is so great that it would be welcomed in the border, but it has the additional merit of lasting in bloom for a very lengthened period. My plants commenced to flower the last week of May, and at the end of July still held sufficient blossom to be attractive. When the shoots that had flowered were cut off the plants threw up side shoots that bloomed in the autumn. Curiously enough the Dropmore variety has not proved as hardy as the type. In the south-west the type never dies in the winter, though totally unprotected, but I know many cases where the Dropmore variety has failed to appear again in the spring after dying down. As I have already mentioned, seedlings of this variety which have come under my notice have been very inferior to their parent. Propagation must therefore necessarily be effected in some other manner, and root cuttings have been proved a successful method. The plant must be lifted in the winter and the roots cut into

pieces 1 inch to 2 inches in length and inserted in pots or pans of very sandy soil. In a few weeks growth will appear, and the little plants may be grown on until ready for planting out. In open spaces in the wild garden this *Anchusa* produces a beautiful picture when in full flower, and a group of plants on a sloping lawn are also most effective. For indoor decoration the flower sprays are very valuable, and when cut at a length of 4 feet or so form delightful arrangements in tall vases.

S. W. FITZHERBERT.

STRIPED AND OTHER AURICULAS.

In the early days of Auriculas, long ago, before—or, at any rate, at the time when it was beginning to form itself, by the guidance of cultivators, into the sections in which it appears to-day—striped, flaked, and parti-coloured Auriculas, in fantastic shapes, were cultivated, and probably some of them were not without attractions. In the process of developing the edged and self character there is no doubt many flowers were cast aside which, though pretty and winsome, were outside the classes. Some of these, of modern development, now appear on the exhibition tables of the National Auricula Society under the comprehensive name of "Fancies," but so far they are grown by very few indeed; and yet they are not without claims to beauty and refinement. A flower with a golden tube, the paste correct, but in the place of the dark body colour a zone of pure gold, with a narrow emerald green edge, might win more admirers than



THE NEW ITALIAN ALKANET (*ANCHUSA ITALICA*, DROPMORE VARIETY)
(This beautiful blue flower originated in the gardens at Dropmore, Maidenhead.)

the most correct green edged which can be staged. A striped flower, a descendant of some grown two centuries ago, is rarely, if ever, seen among the "Fancies." There can be found one in some catalogues, but it is a weakly grower, having small striped flowers of Cowslip shape, the ground colour yellow, with pencillings of brownish red. Sometimes the flowers will come self coloured—all red or all yellow.

A few years ago a beautiful striped Auricula sported in the collection of the Rev. F. D. Horner from a red self named Firefly, which I think has not yet been distributed. I saw a truss of this at the Birmingham Auricula show in 1900, and there could be seen pips of fine form and handsomely striped with red and gold. The striped flowers were equally and decidedly striped. It is certainly very lovely in spring, though two or three of the flowers were all bright yellow; one was buff coloured, but none of the reversions went back to the red type Firefly. This brilliant self is like some other fine Auriculas, chary of producing offsets, while to use Mr. Horner's remark, "the beautiful striped sport is desperately slow," meaning that it is very spare of throwing up offsets. One can quite understand that Mr. Horner would be unwilling to part with this fine striped form in case it should revert to the original self form, though it is certain many would like to obtain it. Sportiveness is not of frequent occurrence in the cultivated Auricula, and it is probable red selfs like Firefly would be more likely to develop sportiveness than any other.

It can be observed that, on the occasions of holding the exhibition of the National Auricula Society, some one is found regretting that the Auricula cultivators do not betray a tendency to break away into other lines. I can point to the fancy varieties as affording material such persons who turn aside from the edged and self flowers might cultivate. There are several beautiful yellow self Auriculas worthy of attention, while the alpine type is pregnant with variation and to an almost interminable degree. Then there are such double varieties as may be found in cultivation—not many, it is true, but some—and these are certainly interesting forms. There is no necessity for the cultivator of the fine show flowers to abandon his pets, while there is ample material outside them for those who wish for greater variety to experiment with.

R. DEAN.

THE ROSE GARDEN.

FAILURES WITH MARECHAL NIEL.

"**M**ARECHAL NIEL is my favourite Rose, and yet I cannot succeed in growing it." This is frequently said to me by persons who do not employ a regular gardener, and I am not surprised that they cannot grow it.

Excellent plants are bought, with long well-ripened 10 feet to 12 feet long shoots, and perhaps all goes well the first season, because the plants can hardly help doing well if they are nursed. Where failures come in is in the want of forethought. As soon as the blossoms are over it is necessary that new growths be made for next year's crop. This cannot be done satisfactorily unless the roots are enabled to grow freely in a well-prepared border or in good compost in a large pot or tub. The initial failure lies in improper planting or potting. The mass of soil and roots should not only be thoroughly soaked with water, but the little roots should be released with a pointed stick. Then the border or pots must be well drained and a good depth of suitable soil provided. Bone-meal should be freely used with the loam, both in the border as well as in the pots or tubs. I much prefer a border for this Rose, and under glass if possible, although this is not absolutely essential. Let it be made as carefully as for a Vine. For one plant a hole 3 feet long and wide and the same depth would suffice. Take out the old soil and add new. Sometimes the old soil is good enough, but it wants breaking up. A little new turfy loam will always repay anyone who adds this to their borders.

Now as to treatment after flowering. Encourage new growth by cutting back the flowering wood to

within a foot of the old wood. This should be done about May or early June, for in cold houses, which I have principally in mind, the blossoming time will be about May. By well syringing the plants and taking advantage of sun-heat new growths are quickly started. Select three or four of the best and rub off any small shoots. By September fine long rods will be secured. A few inches should be cut off extreme ends in October to assist in ripening the growths, and plenty of air afforded. But it will be said there is no old wood in the plants the first year. This is quite true. The right thing to do in this case is to cut the plants down about half their length and spread the growths out almost horizontally, then select the four best new shoots that will break out. If the plant has two long growths when bought, each of these should carry two new ones, taking care to rub off others as they appear. Having formed this basis the future treatment will be as described.

Canker is the great enemy of this Rose, and for this disease there is no known remedy. Much may be done to avoid this by judiciously thinning the flower-buds. It is better to allow the plant to perfect two or three dozen blooms than a hundred. Although I have mentioned the long plants usually sold, I am a strong advocate for short standard plants; they somehow have more root power. It is generally admitted by all who grow Tea Roses that the best results are obtained from the Hedge Briar, and this glorious Rose is no exception to the rule.

TRANSPLANTING ROSES.

EVEN professional gardeners do not sufficiently realise the need of transplanting their Roses. In some of the best Rose gardens in the country triennial transplanting is adopted with marked success. When a standard Rose, for instance, appears dwindling away, just lift it carefully, covering the roots temporarily with soil, then proceed to dig the ground at least 2 feet deep, adding bone-meal and well-rotted manure to the soil. Trim the roots of the tree, remove any buds which would make suckers, and then replant. First take out a hole 1 foot square and 6 inches deep. Make the stake firm in the ground and tie the standard to it. Then put in the hole a shovelful of prepared compost consisting of loam, leaf-soil, and burnt garden refuse in equal parts. Work this well among the roots, these latter being carefully spread out, then fill up the hole with the ordinary soil. Tread the soil firmly about the roots, and cover the surface with about half an inch of well-rotted manure. If the soil sinks below the level this should be made good by adding a little more soil, but as a rule try and keep the roots of the plants near the surface. Many thousands of Roses are ruined by deep planting. The same care in replanting applies to bush and pillar plants. Climbers on arches should not be transplanted, but the soil may be now and then renewed without much disturbance to their roots. When transplanting beds of Tea Roses work in some gritty material, and always keep the beds 3 inches or 4 inches higher than the level.

PEGGING DOWN ROSES.

VISITORS to Kew Gardens last year could have seen a splendid bed of Clio, that lovely Hybrid Perpetual, just one mass of bloom. It was an illustration of what may be done by pegging down Roses. It takes about three years before the best effect is produced, but it is worth trying. The soil must be trenched and well manured, mixing the manure with the soil as trenching proceeds. Good drainage is very essential.

The best plants to use are those on their own roots. Plant the bushes about 3 feet apart each way. At the end of March cut down the plants to within three buds of the base. A few blooms will be obtained the first year. The following February select the best shoot of each plant and cut all the others back hard. Of the one selected remove about one-third of its length. Procure some stout pegs made from Pea sticks. The shoots should be pegged down so that their points touch the ground. Be careful in bending them or they will split at the

base. Some good blooms will be produced on this shoot, and several more growths will spring up during the summer. In November of each year cut away the growths that have been pegged and cover the ground with manure, digging this in in February. Select three or four of the stoutest growths and peg down in March, and cut all others away. Repeat this each year. A splendid show of bloom will be annually produced, and the quality, too, will be good. Many shy blooming Roses may be thus compelled to flower. A few good ones for the purpose are Frau Karl Druschki, Mrs. John Laing, Ulrich Brunner, Grüss an Teplitz, Mme. Abel Chatenay, M. Desir, François Crousse, Clio, John Ruskin, Ards Pillar, Charles Lefebvre, Dr. Andry, Duke of Edinburgh, Caroline Testout, François Michelon, Prince C. de Rohan, John Hopper, Climbing Mrs. W. J. Grant, Laurette Messimy, Alister Stella Gray, and W. A. Richardson. P.

COLOURED PRIMROSES.

SOME twenty years ago I began the culture of these charming hardy flowers, and my love for them remains undiminished. I must confess that my affection is in a great measure confined to that form of Primrose which resembles in growth and manner of flowering the Primrose of the woods. If our native *Primula acaulis* carried its blossoms on *Polyanthus*-like stems I do not think we should love it quite so well. It is not only the colour of the flowers, but the habit of the plant, that charms. Although the flowers face the sky so boldly, they nestle cosily among the fresh green foliage, finding shelter from the cold winds which frequently pass over the land when early spring flowers are giving us a foretaste of joys to come in the open-air garden. Fine and effective as is the so-called Bunch or *Polyanthus* Primrose, it is neither one thing nor the other. It has the habit of the *Polyanthus* and flowers in Primrose time. It fails, moreover, to yield any measure of its beauty before the spring sunshine calls up its blossoms, whereas the true Primrose forms give us an idea in late autumn, and even in winter in a mild time, of what they are going to do under the influence of April showers and May sunshine. Not infrequently when the growing time has been favourable and the young leaves have come up strongly in early autumn, one may have quite a little show of the many-hued blossoms. I have gathered them fresh and fair varying in colour from pure white to rich crimson in midwinter. It is this habit of producing blooms under the leaden skies of an English winter that intensifies the potentiality they possess for beautifying the outdoor garden. In their case it is even possible to cheat the sharp frosts and heavy rains that mar the beauty of the flowers. Pick them just before they expand, and they will open indoors in the warmth of a living room. A bed of these coloured Primroses is one of the fairest pictures one can have in the spring garden. In a good strain one gets such a wide range of colour—pure white, rich crimson, and blue, with any amount of intermediate shades. For many years a blue Primrose was a dream of the florist, but which was not thought would ever be realised. We have blue Primroses now, but the flower grower generally does not enthuse over them; in fact, I have heard them called monstrosities and abortions. I wonder if it would be the same with blue Roses and blue Dahlias. Possibly they would not realise anticipations. Many years ago I witnessed the birth of the blue Primrose at Wisley. The plant, which was afterwards named Scott Wilson, was growing on the hillside in the shelter of a Furze bank, and carried three flowers. It took many years of patient selection to bring Oakwood Blue to life, this being the parent of the present race of blue Primroses. I have in remembrance, however, that some twenty years ago Mr. Dean exhibited a variety under the name of True Blue. What the fate of it was I do not know, but I never remember seeing it mentioned in any garden paper afterwards. I fancy that the shades of blue which distinguish these Primroses

are rather too deep; there is a purplish tinge running through them which takes off the brilliancy of tint. When looking over some beds of them at Wisley previous to their distribution I noticed several plants of a lighter shade, more like the blue of the blue-bag, and I thought, and still think, that that was the tint which should be encouraged.

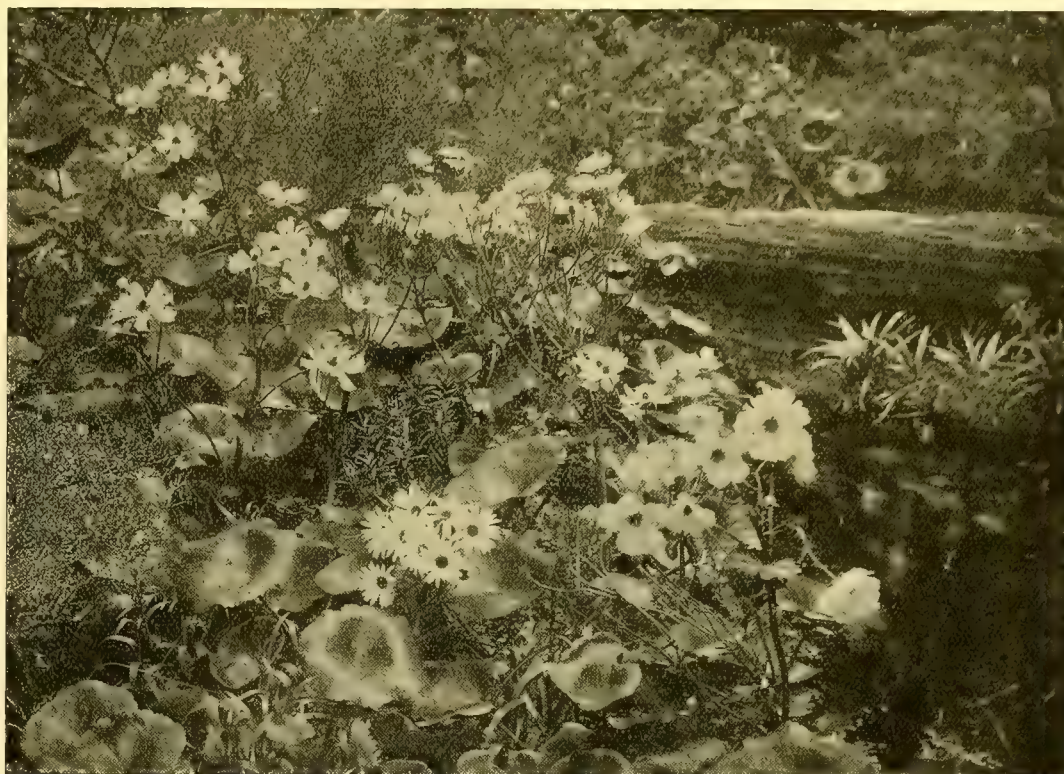
In the woodland garden these Primroses cannot be too freely used, and they are delightful in the grass, their pretty bright blossoms, peeping out from the fresh verdure, having a most charming appearance. In the woodlands one easily secures more natural conditions for these little flowers of spring; the opening flowers are in some measure screened from pelting rains, and in the partial shelter of deciduous trees they do not suffer much from spring frosts, which in the open sometimes mar their freshness. We all know how the yellow Primrose grows. We find it either in the woods and hedgerows or damp meadows thrusting up its pale-eyed blossoms from among the lush grass, and we know that under those conditions plants live to a good old age, a very little shelter naturally increasing longevity. In the grass the coloured varieties are equally at home, and will live happily there for years. Of course, the grass must not be cut until growth is completed, otherwise there will be a loss of vigour. Only good strong plants should be used for naturalising in grass or woodland, and in all cases planting should, if possible, be done before the end of the year. In raising plants from seeds my practice has been to sow as soon as the seeds were ripe in the case of small quantities in boxes or when I required a quantity in well-prepared soil in cold frames. By the close of the autumn one gets nice little plants with several leaves, which, if got out into good soil and well looked after throughout the summer, will grow into vigorous specimens capable of carrying several dozen blooms, which will begin to reward the growers in early autumn for pains and labour bestowed upon them.

J. CORNHILL.

NOTES ON HARDY PLANTS.

SWEET PEAS AND CANTERBURY BELLS.

ALL kind of preparatory work is to be done now that January is with us if we would have our borders beautiful in the ensuing summer. Sweet Peas must be sown. Take some of the pots lately vacated by early Chrysanthemums, wash and purify them well, and crock them liberally, putting next a layer of fresh stable manure, and fill up with good clean soil, well rammed down. In each pot sow twenty seeds of large varieties of different colours, keeping these separate, in case you should want them for your colour sections. Put in at once some little twigs round the edge, water well, and place as near the light as possible. These are for large clumps to plant out in April, and more Sweet Peas can be sown in small pots in February for the same purpose, and in the open in March. I am not an advocate for autumn sowing, as the young plants have to run the gauntlet of so many dangers. There is yet time to pot up some Canterbury Bells from the reserve garden. It is a splendid subject for such treatment, and flowers much earlier and much more profusely than those that have wintered in the borders. I stand them out directly all fear of frost is over on the terrace or on the steps leading to it, staking them securely against a possible gale, and then they give the colour and bloom so acceptable at a season when the summer flowers are tarrying. The white varieties are especially



THE MOUNTAIN LILY (RANUNCULUS LYALLI) IN NEW ZEALAND.

charming grouped in a hall or large drawing-room against a background of Ferns and foliage plants. Canterbury Bells dislike heavy rains and cold winds, and delight in the warm shelter of a room where there can be no injury to the pure white of their charming blossoms; but for early flowering indoors the plants should be potted in October.

A. DE LACY LACY.

THE MOUNTAIN LILY.

I SEND you one or two photographs of some of our alpine plants. The one of the Mountain Lily does not do justice to the surroundings. It struck me at the time as a perfect little natural water garden. In the centre of the picture there is a Daisy, something like a Marguerite, of a pale lemon colour slightly darkening towards the tips, which seems to grow best in running water. The altitude of the place would be nearly 5,000 feet. The Mountain Daisy (Celmisia) grows at the same altitude, but likes a somewhat drier soil, growing best on the shady side of the gullies. The specimen photographed was about 3½ inches in diameter, and was a very fine one. The Vegetable Sheep is one of the most curious of our native plants. It is of a greenish grey colour, with the stems packed very close together and the tips level with one another, so that the plant looks more like a fungus than a plant with stem, branches, and leaves. The flower is a very minute Daisy-like one, sprinkled over the surface of the plant. The name originated from a fancied resemblance at a distance to living sheep, and the plants are sometimes mistaken for such by the shepherds. My brother tells me that he has himself sent his dogs after them. They grow at an altitude of about 6,000 feet. The photographs were taken in the Glenhoern country, between the rivers Harper and Wilberforce, at the head of Lake Coleridge.

Christchurch, New Zealand.

HAROLD LARKIN.

SAXIFRAGA ALTISSIMA.

THIS is one of the strongest growing of the encrusted Saxifragas, and has the appearance of being a hybrid between pyramidalis and longifolia. It grows under congenial circumstances with much freedom, increasing more rapidly than any kind of

a similar nature. The flowers, which are white with a pink spot on the petals, are thrown up on long stems, but in my experience at least are not numerous produced. These encrusted Saxifragas are very bright and attractive just now. Their encrustations are never so well marked as in late autumn and early winter. All the Saxifragas love moisture, and never seem to get too much when the soil is right and the drainage is good. As the days diminish in length the markings become more distinct and the foliage takes on a richer tinge. This class of plant, which is most attractive at a time when there is little beauty in the outdoor garden, is worthy of much care.

Byfleet.

J. C.

A RARE CROCUS.

CROCUS CASPIUS, only introduced to cultivation in 1902, although known to botanists for some time, and figured in Maw's "Monograph," flowered with me early in December from corms received by me in November, 1902, through the kindness of one of the enterprising syndicate who organised the collecting expedition. It appears to be suitable for our climate, and one which will be worth including in a garden where hardy winter flowers are appreciated. With me it has been continuously cultivated since I received it in the open without any protection, and in a light sandy peat soil. No covering has been given at any time, and the blooms now open are unprotected. It is certainly a drawback that the paucity of sunshine at its blooming time prevents our having the full enjoyment of the little white flowers, but even on a gloomy day the little cones of white, with the touch of brightness given by the yellow base, are delightful indeed. Mr. George Maw's plate (No. XLVI.), which I have before me as I write, cannot be said to do justice to this Crocus. The white is purer and the yellow brighter than the plate would indicate. According to Mr. Maw, C. caspius was discovered by Hohenacker in 1838 on the western and southern coasts of the Caspian Sea, and he states that it had also been collected in northern Persia and Georgia. It was recorded near Astrabad, and the corms sent home by the collector employed by the syndicate in 1902 were collected in the Russian Talysh, south-west of the

Caspian Sea. In its native habitats it begins to flower in October and November, and continues to flower until April.

It will hardly be so prolonged in its flowering with us, but it will be a welcome little flower in gardens where it is established. As it was originally found under bushes I have it in a place partially shaded, where it is doing well and is now showing signs of increase. The segments are about $1\frac{1}{2}$ inches long, and the leaves are produced with the flowers, reaching about the same height as these at the time of flowering.

S. ARNOTT.

Carsethorn, N.B.

CULTIVATION OF THE NARCISSUS IN CHINA.

A FEW days since a florist with a large business informed me that there is a great demand in fashionable society for the above beautiful flower, so perhaps the readers of *THE GARDEN* will be interested to learn more concerning this welcome visitor from the Far East, it being a native of Southern China, whence for centuries it has been annually exported to Peking and other Mandarin centres in the cold north.

At Peking it is a great favourite, being, with the exception of two or three dwarf shrubs, which blossom in pots, the only winter flower. Thus in every Mandarin's household or homes of the better classes there is always one or more servants who are experts at rearing the "Shivei Shiang Hua," or "Water Fragrance Flower," around which there is much of beautiful sentiment; firstly, because of a play on the words, which imply mutual and sincere friendship, and the sensation of an exhilarating influence when a beautiful bowl containing the bulbs in blossom is suddenly placed on a festive table, where, coming into a warmer atmosphere from a colder room, these lovely flowers give off a deliciously sweet and "crisp" perfume. Hard and solid bulbs are carefully selected by the special servants (these bulbs must not have grown) and are placed on a sheltered windowsill and thoroughly dried in the sun, the face changed so that the whole bulb may absorb evenly the sun rays. Then an oblong dish, 2 inches deep, is made nearly full with white pebbles, or small flint stones, which must be perfectly clean. A small quantity of the purest water obtainable, not rain water, is poured into the dish, just sufficient to cover two-thirds of the stones. This water is changed at least every six days, and the bulbs and stones thoroughly cleansed. The bulbs are placed so that they just touch the water. All dark or unhealthy rootlets are cut away, and no roots are

allowed to grow more than 2 inches in length. The dish with the bulbs is kept in the light and in a cool room, with a temperature not exceeding 40° to 45° Fahr. The plants then develop slowly, and are given as much light as possible, the idea being that the foliage should not exceed 6 inches or 8 inches in height, the leaves stand up stiffly, and are of a dark green. The flower-stems must be stout and



A HARDY PALM IN DR. BEALE'S GARDEN AT WEYBRIDGE.

firm; the crown, of not less than twelve strong blossoms on each stem, should rise proudly about 1 inch above the foliage. Some experts, in order that they may secure better blossom heads and less foliage, cut away the three outer layers of the bulb. The bulbs must be kept in the sunshine and turned round daily. They can be placed in earth instead of water if desired, but grown as the natives of Peking grow them they will, when brought from the cooler atmosphere into a warmer room, quickly fill a large space with fresh and breezy perfume, which makes one imagine that it is a lovely spring day, and a gentle wind has wafted in the scents of many delicious flowers.

Ticehurst, Sussex.

R. T. TURLEY.

TREES AND SHRUBS.

A HARDY PALM.

SOME take a delight in imparting a tropical appearance to their gardens by planting Bamboos, Dracenas, Aralias, and other exotics. There is a good deal to be said in support of this practice.

They relieve the monotony of outline that is all too frequent in shrubberies, and add a distinctness that is hardly possible to obtain from more familiar trees and shrubs. There are few Palms that can be left out of doors through the winter, even in the most favoured parts of the British Isles. There is only one that can be said to be hardy even in the southern Midland gardens. This is *Trachycarpus excelsa*, better known perhaps as *Chamærops excelsa*, of which we give an illustration. The plant shown is in the Weybridge garden of Dr. Lionel Beale, and was planted out of doors more than twenty years ago. It is protected by a high hedge from the north, and has a south-east aspect. This *Chamærops* is rather more than thirty years old. It was a small table plant, and was bought with a few others twenty-five years ago at Stevens's; they cost less than 6d. each. It is now 12 feet high; the leaves extend over a space nearly 12 feet square. The largest leaves are 4 feet in diameter, and the petiole is the same length. The hairy stem is 5 feet high, and nearly 3 feet in circumference. It is not advisable to transplant Palms; to do so throws them back. A good place should be chosen at first, and even if the plant looks rather unhappy at first, it is better to leave it undisturbed, for after a year or two it will doubtless improve. Many of the pot plants of this Palm that are starving in greenhouses or rooms would probably be far happier if planted out of doors in some sheltered nook in fairly good soil. The illustration shows admirably how well this Palm will thrive out of doors if it is not too much exposed.

Y. Z.

COTONEASTER ANGUSTIFOLIA.

THIS is one of the many interesting hardy shrubs collected in China by French missionaries, who sent seed of it to M. Maurice de Vilmorin, who raised and fruited it in his richly stocked garden at Les Barres. A number of profusely fruiting branches of this new *Cotoneaster* were exhibited for him at the November meeting of the Royal Horticultural Society at Vincent Square by Mr. George Paul, to whom he sent them. The colour of

the fruit is a clear orange yellow, which is quite new in Cotoneasters, and therefore a great acquisition. In general appearance the fruit resembles (in every respect save the colour) that of *Cratægus Lelandii*. Plants of this interesting new shrub can now be obtained at an extremely moderate price from M. Léon Chenault of Orleans.

W. E. GUMBLETON.

TREES AND SHRUBS FOR WINTER COLOUR.

THERE is usually a wealth of brightly-coloured leaves and fruits on various trees and shrubs in the autumn, but a very limited number are conspicuous in the winter. To brighten the garden in winter we have to rely upon a few plants that hold their fruits, and others that have bright-coloured stems. A judicious selection of trees and shrubs at this planting time will make all the difference during the winter months in the attractiveness of the garden. Of course, the amount of space to be planted governs to a large extent the size of the plants employed, but there are many small-growing shrubs that can be used in small gardens. It is rather surprising that more of these winter trees and shrubs are not planted, as practically all of them are to be obtained very cheaply, and are also very easy to grow, while their value during the duller time of the year is incalculable.

The trees best suited for winter effect are the common Birch (*Betula alba*) and its North American cousin, the Paper Birch (*B. papyrifera*); both are of graceful outline, while the stems of mature trees are of a gleaming whiteness, which shows to advantage, especially against a dark background of evergreens. *Salix alba* var. *argentea*, with whitish stems; *S. fragilis* var. *basfordiana*, with reddish yellow twigs; and *S. daphnoides*, with violet-coloured stems, are all trees of medium height that are very conspicuous, especially near water. These three Willows can also be treated as shrubs by cutting them down each spring just as growth commences. *Ulmus alata* (the Winged Elm) is a tree attaining a height of about 20 feet, with a broad, spreading head, and makes a striking winter picture with its curious corky winged branches. Of smaller trees and shrubs ranging from 10 feet to 20 feet in height there are *Acer pennsylvanicum* (*A. striatum*), the Snake-barked Maple, with its

trunk and branches striated with white lines, set off by the bright red of the points of the young shoots; *Cotoneaster frigida*, which makes a large bush loaded with bright scarlet berries, which hang for the greater part of the winter and are not taken by birds; and *Cratægus cordata* (the Washington Thorn), which carries its scarlet berries nearly to Christmas if untouched by birds. The Holly also,

Several shrubs with coloured stems are useful in the winter. *Rubus biflorus*, a Himalayan plant which makes growths about 10 feet long, covered with a thick, glaucous bloom that shines a bluish white in the winter; *Cornus alba*, a Dogwood with warm red stems; and *Salix vitellina* (the Golden Osier), in both its forms with yellow and red stems, may be mentioned as easy to grow, cheap to buy,

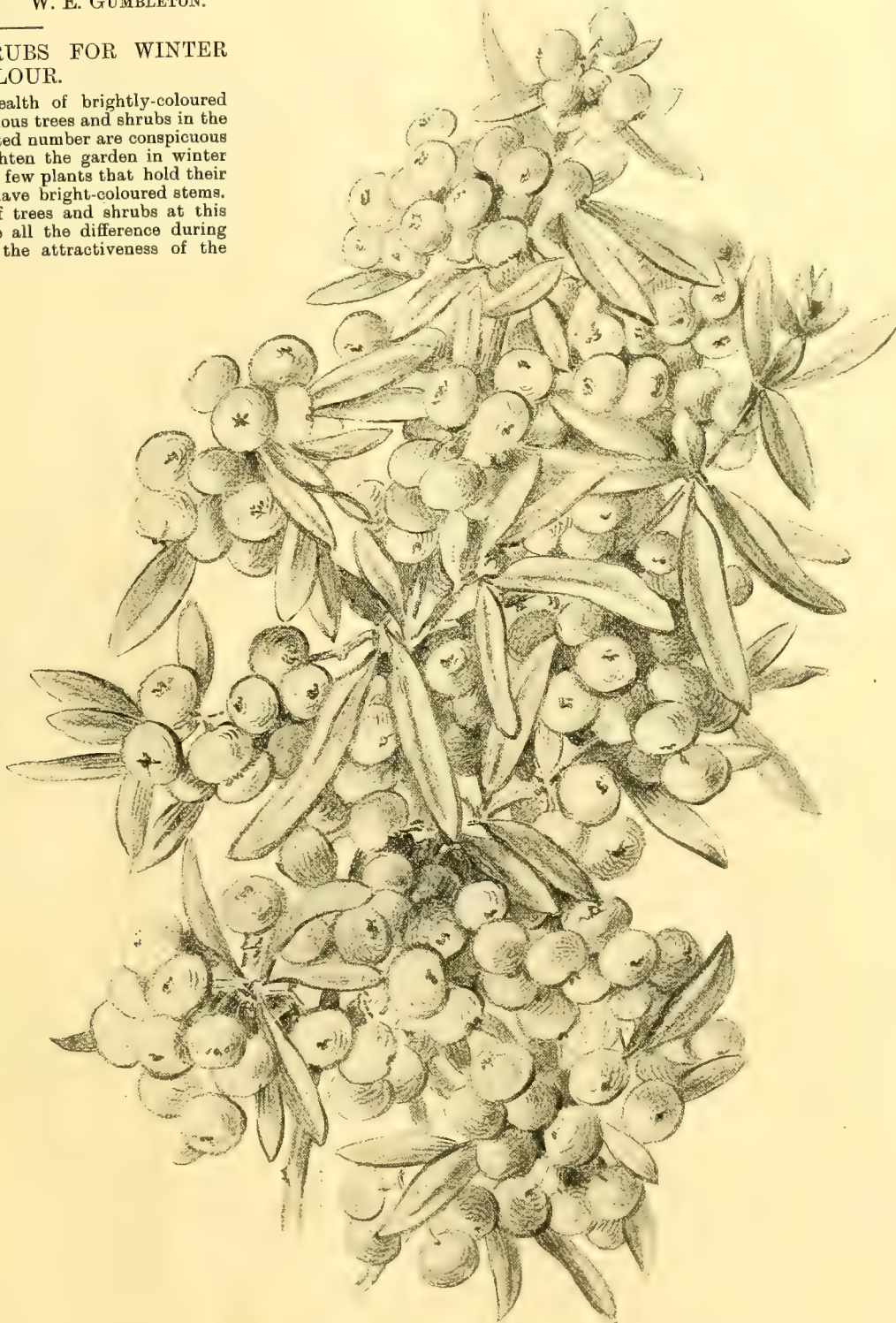
and certain to give satisfaction. Among shrubs with bright berries are *Euonymus europæus* (the Spindle Tree), with its red fruits expanding and showing the orange covering of the seeds; *Hippophaë rhamnoides* (the Sea Buckthorn), with its clusters of orange berries; *Cotoneaster rotundifolia*, a spreading bush with bright red berries; and *Skimmias* in variety with scarlet fruits, followed by the *Aucubas* in the early spring, which seem to fit in at the right time to fill a gap. The winter is not such a flowerless time as may be supposed, as we have the yellow *Jasminum nudiflorum*, the golden *Hamamelis*, *Daphnes* in red and white, the sweet-scented *Lonicera fragrantissima*, and *Chimonanthus fragrans*, with its pale yellow fragrant flowers. All these come into bloom through the winter; sometimes they are cut off by frost, but bravely open again as soon as better weather comes. The Tree Ivies also must not be overlooked, as when planted in masses they have a fine winter effect, and fully justify the commendation bestowed on them on page 344 of THE GARDEN of November 19.

All the trees and shrubs mentioned above are easy to grow, are perfectly hardy, and can be obtained cheaply. With a judicious selection of site when planting, giving a dark background for those that are thus made more effective, they will be found to give brightness when it is most required. It is a pity that trees and shrubs that are attractive in winter are not more

grown. Winter may be a season of colour when the right things are chosen, such as those mentioned.

Bagshot, Surrey.

J. CLARK.



THE NEW COTONEASTER ANGUSTIFOLIA.

(Given a first-class certificate at the meeting of the Royal Horticultural Society on November 29 last.)

its curious corky winged branches. Of smaller trees and shrubs ranging from 10 feet to 20 feet in height there are *Acer pennsylvanicum* (*A. striatum*), the Snake-barked Maple, with its

in its numerous varieties with gold and silver variegation, and shining green-leaved forms with red or yellow berries, should be widely planted, as there is no hardy plant to equal it for winter effect.

GARDENING FOR BEGINNERS.

THOSE who have had no previous experience in gardening, or possibly in outdoor work, will at first find many little difficulties to contend with. This is an experience which all have to go through, and its educational value is considerable. It is scarcely possible for any writer to anticipate all those difficulties. Gardening is such a many-sided pastime, and the soil, climate, and other local conditions vary so much that there can be no absolute exactitude in anything; but the writer of these notes will be pleased to answer any questions which may arise in this department, in the hope of clearing away any doubts or difficulties as we proceed.

Ugliness of straight walls and fences.—I never see a long straight wall or wood fence in all its horrid nakedness but I long to plant something against it that will break up its harsh outline. The first thing to be done is trench and manure the site bordering the side of the wall. And the border of shrubs, fruit trees, or Roses need not be a narrow oblong patch. Let it break away 1 foot or even more from the straight line sometimes, though there should be no sudden or abrupt twistings, as easy flowing lines are the most pleasing.

Marking out outline of bed or border.—The easiest way of marking out the outline of a border or bed is to stretch a waggon rope in the required position, moving it about and noting its effect from different points of view until the most easy and graceful line has been obtained, and then drive in a few pegs where the margin of the bed or border is to be.

Treatment of shallow soil.

—There can be no good gardening in a poor shallow soil, and by trenching is meant to provide a depth of soil suitable for the roots of plants to work in of 2 feet at least. Open a trench 2½ feet wide and 2 feet deep across the piece of ground, moving the soil taken out to the opposite side where the trenching will ultimately finish. In trenching the soil is reversed, but where the subsoil is bad it is better, after breaking it up and manuring the bottom spit, to leave it there, and reverse the top spit. Only those who have large supplies of manure or good soil to draw upon may do anything in gardening, but most of us must proceed tentatively, fixing one foot firmly on the ground before the other is lifted, and to those double digging is a safer course to follow.

Preparing for Roses.—In preparing the site for Roses be liberal with the manure, for Roses of the best types will perish in a poor soil. In newly broken upland for anything special we generally allow one cartload of manure for two square rods of land. This is admittedly a heavy dressing, but it is none too much for Roses when the bottom spit has to be considered.

Weedy gravel paths.—When the trenching or double digging is finished leave it to settle, and we will consider its planting in the near future. At the present time the surface of the ground is wet and sticky, and we are better off it except for such work as trenching. This is a good time to turn over gravel walks which are weedy or on which moss grows. Dig it over with fork or spade,

burying the moss and weeds, tread it, and then put the gravel into shape with the rake and roll it down firmly. A well-made gravel walk should be highest in the centre, to give a slight fall for the water to the sides; 2 inches will be fall enough for a 5-feet walk.

Getting in Briars.—In country places it is not difficult to dig up stout Briars in the hedges, or at least they can be purchased cheaply from those who look after them. The roots require trimming with saw and sharp knife, and should then be planted in good land, in rows 3 feet apart and 15 inches distance in the row, and made firm and secured by running a wire along the top to keep them steady. The beginner with Roses must endeavour to keep up his stock by budding a few Briars, both dwarfs and standards, as maidens throw

in considerable numbers, and groups of retarded flowers are abundant, especially Trumpet Lilies and Lily of the Valley, which now seems indispensable, though to keep up a succession means considerable expense. But groups of Cinerarias, zonal Pelargoniums, Primulas, Cyclamens, and various kinds of bulbs, such as Freesias, Tulips, and Narcissi, need not be impossible.

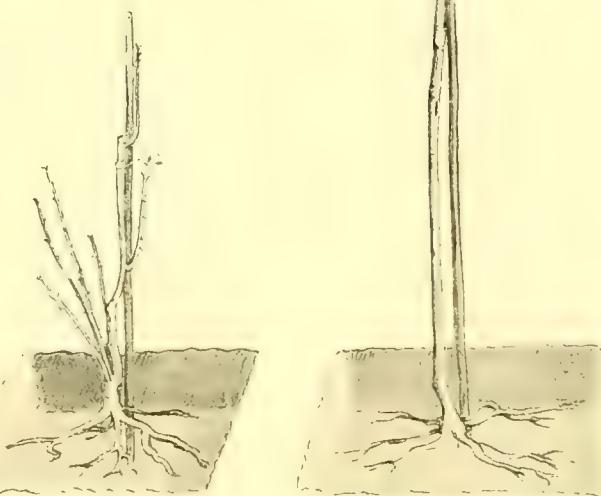
Value of a little plan of the garden.—Every beginner should have a rough plan of his garden, and the place for each intended crop or bed marked on the plan, so that no mistakes may be made in fitting the soil for crops, especially as regards manuring, as well as in giving a proper rotation. Raspberries, Strawberries, Rhubarb, and some other plants often occupy one site too long; three years is long enough for Strawberries, seven to ten years for Raspberries, and six years for Rhubarb and Globe Artichokes.

Planting young trees in place of old ones.—If it should be necessary to plant a young tree on the spot from which an old one has been removed change the soil, or find a new site for the tree. Keep the trees well up in planting, as the earth has a natural tendency to rise, and deep rooting is injurious. Many of our best fruits have been chance seedlings, but scientific training will leave nothing to chance, and in the future there will be scope for the hybridist; and for those who have time and inclination to carry out experiments this the coming generation will attend to. Those who have

Old seeds of vegetables or flowers need not throw them away. Select an average sample, and sow any given number in pots in heat. E. H.

PLANTING ROSES.

This can be undertaken at any time between the beginning of November and the end of March. Should the ground be sodden or frozen when the Roses arrive, the planting must be deferred until in the one case the superfluous moisture has passed into the subsoil, and in the other until the frost is quite out of the ground. In order to prevent the exposure of the roots to sunshine or drying winds it will be a good plan to take only a few plants at a time from the place where they have been heeled in and to place a mat over them when brought to the side of the bed. A square hole for each plant should be made, not more than 6 inches deep and sufficiently large to hold the roots when spread out horizontally. A plant should then be taken from beneath the matting and placed in the hole, taking care to spread out the roots evenly all round. Some fine soil, free from manure, should next be worked with the hand between the roots and above them to the depth of 3 inches, and afterwards trodden down with moderate firmness, so as not to bruise the roots. After adding more soil, that in the hole should again be pressed down, more firmly this time, and a final treading given when the hole is filled up. Firm planting is of the greatest importance to the after welfare of the plants. Where extra attention can be given to the Roses, it will be well to place a little leaf-mould at the bottom of each hole, and to work in, among and above the roots, a few inches of the same material instead of the fine soil. Failing leaf-mould, some finely-chopped fibrous loam may be used; if of a somewhat gritty nature so much the better. In each case a small handful of bone-dust should be sprinkled over the layer of leaf-mould or fibrous loam. The principal advantage of these additions is that they enable the plants to become more quickly established, and also allow of the planting being proceeded with, when, owing to the wet nature of the soil in the beds, it would not be otherwise practicable. No manure should be allowed to come in contact with the roots themselves at the time of planting. The roots when they become active will soon find out the manure and appreciate it, but in a dormant state it is more like poison than food to them.



HOW TO PLANT DWARF AND STANDARD ROSES.

the finest blooms, and they usually come a little later than the cut-backs. Roses and fruit trees the first year from the bud or graft are termed maidens.

Pruning Peaches often gives trouble to the novice, and yet it is not difficult to understand. Peaches bear their fruits for the most part on the young wood of the previous year, and the really important matter is that there should be enough young wood to lay in the branches 5 inches to 6 inches apart all over the surface of the wall which the tree covers. This is usually provided for in the summer pruning.

Cuttings of Chrysanthemums should be taken now. The strong vigorous cuttings generally retain their superiority. Insert singly in small pots in light sandy soil, and either place in frames or under handlights, or they will root well in boxes deep enough to permit of a square of glass being placed over them. The glass should be reversed every day to evaporate the surplus moisture.

In the conservatory now there should be plenty of flowers. Late Chrysanthemums are still present

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

THE PENTSTEMONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—One is glad to see these plants so well presented to the readers of *THE GARDEN* by Mr. G. B. Mallett, and I hope that his excellent notes will bring these beautiful flowers more into notice. As he well says, "There is a wealth of good plants among them, and material still for the florist to use in the raising of new races." One would urge upon those who endeavour to use these plants as the parents of new forms that they should work upon the hardest and most enduring of the species, instead of upon those of great beauty, perhaps, which require frequent propagation, or which do not stand our winters well. The fault of many of those named by Mr. Mallett is their short lives, unless propagated almost annually. This is a great defect in these times, when there are so many good hardy flowers which require much less attention. Among the species not mentioned, but among the longest-lived, is the pretty form of *P. confertus*, generally called *P. procerus*. It is a dwarf herbaceous Pentstemon, suitable for the rockery, and has small flowers of a pleasing purple-blue. Some of the forms of *P. glaber*, justly praised by Mr. Mallett, give beautiful flowers. *P. cyananthus* is referred by the Kew authorities to this species, and the best form of this is the variety *Brandegei*, introduced, I think, by the late Mr. W. Thompson of Ipswich, and seeds of which are still offered by Messrs. Thompson and Morgan. It is a delightful form for the rockery, only about 9 inches high, and having good deep blue flowers. *P. glaber* in a selected form gives us *P. glaber roseus*, with blooms having flowers from pink to rose. These I have seen and think highly of; I hope to grow them on my removal to my new garden. The long spikes of *P. centranthifolius*, some 3 feet high, are also very beautiful in the best forms, which have long-tubed, if somewhat small, scarlet flowers. Of all the species and their hybrids there are, however, none so useful in the garden as *P. barbatus* and its forms, of which *Torreyi* is the best I know. The bane of many of these Pentstemons is, as Mr. Mallett indicates, their prodigality of blooming, which causes them to die off if the seeds are allowed to form and ripen. Cutting off the spikes as soon as the flowers are over will help to prolong the lives of many, but for ordinary gardens, where there is so much to do for the staff employed, their short life is a serious defect, as annual propagation of everything cannot be attended to.

S. ARNOTT.

ROSE FELICITE PERPETUE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was delighted, on opening *THE GARDEN* of the 31st ult., to find this beautiful Rose illustrated so well. I was all the more interested in the picture because, like Mr. Jefferies, I had the great pleasure of seeing this good old Rose each Sunday during the time it was in beauty. I should like to say a few words in answer to Mr. Jefferies's question: "Why are our churchyards so often planted with sombre evergreens; with nothing bright in the way of Roses and flowering shrubs to relieve them?" Because, where churchyards are used as burial grounds, Roses and small shrubs which root near the surface rarely grow satisfactorily, owing to the excessive drainage caused by the graves. I have assisted in planting Roses in churchyards, which were also used as burial grounds as well, and have also seen small flowering shrubs planted in great quantities near graves and near the walks, but have seldom noticed any very flourishing specimens. In the instance under notice there are no graves, and, although the soil may not appear to be an ideal Rose soil, yet the Roses flourish uncommonly well. This is due to the great care bestowed on them. They were planted well and have been carefully attended to in every way,

receiving ample moisture and being kept free from insects. Of course, it may be argued that Yew trees, Cedars, and other Conifers do well in burial grounds. There is a very important reason for this, as those who have seen graves opened will have noticed. Even where the sides of the graves have been lined with bricks the roots will find their way into the graves in a few years. Roses cannot do this; their roots are confined to a very limited area, consequently during the summer all the moisture is drained away from them. I have seen large holes prepared and the best of soil placed in them, and for the first season or so the Roses did well. In a few seasons, however, they died one by one, especially in the case of standards. I can call to mind three instances where kind friends have made presents of Roses for the embellishment of the village churchyard, and, although every care was taken to plant them properly and the plants were purchased repeatedly to fill up the blanks caused by death, not one single Rose tree is to be found to-day in either of the churchyards. In one instance I assisted in the planting, and in each of the other two the planting was done by competent gardeners. Of course, it is not impossible to make Roses and small flowering shrubs thrive in churchyards which have been used for interment. They must, however, have constant attention during the summer months, not simply by giving large quantities of clear water. There must be abundance of suitable manure, for there will be very little contained in the natural soil which is so thoroughly drained.

Cirencester.

A.

CALCEOLARIA INTEGRIFOLIA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This *Calceolaria*—a note on which appeared on page 446, Vol. LXVI.—is comparatively unknown, yet in the warmer portions of our island it is undoubtedly one of the handsomest of flowering plants. It is extremely common in the gardens near the mouth of the River Dart, where it attains large proportions, and is one of the finest of summer-flowering shrubs. I term it a shrub because it is of woody growth, and I have measured a specimen 6 feet in height and 7 feet in diameter, which would have considerably increased in size had it not been cut back. I believe it has been stated by some writers on the *Calceolaria* that this species is useless for outdoor culture in England. This is certainly not the case in the south, where it is very easily grown, and is particularly effective. It is at its best in July, when it is a perfect sheet of gold, and if the flower-clusters are cut off when the blossoms are faded there is a second (autumnal) period of bloom. It is not nearly as tender as has been represented. I have lately had the opportunity of inspecting some dozens of plants, about 2 feet in height, that had been, some weeks previously, exposed to 18° of frost. Although their foliage is somewhat browned these plants are all alive, whereas some shrubby *Veronicas* are killed. In the matter of soil *Calceolaria integrifolia* appears to be easily satisfied. In rich soil its growth is vigorous, and in that of the poorest description it lives and flowers profusely though increasing little in size from season to season. I have known for some years a row of plants which are growing at the top of a retaining wall on a steep hillside facing south; the soil is very stony, and immediately behind the *Calceolarias* is a row of large *Laurustinus* bushes. The poverty of the soil, which in dry summers becomes absolutely parched, can be imagined; but the *Calceolarias*, though making little growth, never fail to flower profusely every summer.

S. W. FITZHERBERT.

THE FLAME NASTURTIUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I must send you a note, which intending planters of *Tropæolum speciosum* will do well to remember. As the tubers (as some of your correspondents are pleased to call them) are so easily bruised, being long and tender roots like those of the troublesome wild *Convolvulus*, it is quite imperative that they be placed on a hard and level

bottom, otherwise the weight of the earth above them damages them so severely that they make little or no growth, and, if they do appear, are so weak that snails and slugs find them most attractive. This is from experience. I may add that I have a large lot of it on a west and shady wall, and that in many winters it escapes death by frost and new growth commences on the old "bines" 8 feet to 10 feet high. This gives a much earlier power to bloom. I have failed to keep its relative *Tropæolum tuberosum*, although I protected the tubers and sometimes raised and dry potted them, while I have seen hedges of it in a friend's garden not far from mine.

Riverston, Nenagh.

J. H. POE.

AUTUMN TINTS IN THE WEST.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—To my surprise "S. W. F.," on page 423, deprecates the poorness of the autumnal tints in the south of Devon, and also includes Southern Cornwall in his lament. Here, in North Cornwall, the colouring of the decaying foliage was glorious. Never in any of the half a dozen counties in which I have resided have I seen the past autumn's display equalled. The Beeches and Elms, especially mentioned by "S. W. F.," were superb, and the foliage remained on the trees much longer than usual. I am of the opinion that the display of colour and the persistence of leaf were due to the absence of the fierce gales we usually experience during the autumn in this neighbourhood. As a rule the Beech leaves are badly torn and bruised before they change colour, and consequently make but a poor show. The common Elm is also a grate sufferer in this respect. Even when growing six miles from the sea I have seen both these trees with all the leaves on the windward side nearly black, and when handled break up as though scorched by fire, so destructive are some of these salt-laden gales. The Cornish Elm, with its smaller and firmer leaves, frequently escapes comparatively unhurt, and during the autumn makes a beautiful show. The tapering habit of the Cornish Elm makes it a fitting companion to the common Larch. Although it never attains the massive proportions of the common Elm as grown in the strong soil of South Devon, yet the Cornish variety develops into a very fair-sized tree. Its trunk is almost invariably clean and straight, and of nearly equal diameter for fully three parts of its length. It usually comes into leaf quite a fortnight later than the common Elm. Here, in North Cornwall, it is largely planted as a hedgerow tree; while breaking the wind and affording a fair amount of shade, it does not overshadow the ground and kill the grass, as do many trees of less compact habit. During the time of the falling leaf the soft golden colour of trees so grown adds greatly to the beauty of the countryside.

A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

GARDENING OF THE WEEK.

FLOWER GARDEN.

C LIMBERS on walls having been pruned and secured to their supports, the borders in which they are planted should be thoroughly manured and dug, but probably these are in part occupied by perennials, &c., some of which no doubt have outgrown their allotted space. Some of those that have outgrown their limits must first be reduced.

TROPÆOLUM SPECIOSUM has a great tendency to ramble away from near the wall into the borders, and as a rule they do well in such positions, the shade of the herbaceous plants on the lower portion of their growths being beneficial. All roots at a distance of 18 inches or so from the walls should be carefully forked out, cut into 2-inch or 3-inch lengths, laid flat in boxes, and covered with light soil until sprouts 1 inch or 2 inches are formed, when they can be planted where required with a fair prospect of being established. The heavier the soil—in

reason—the stronger the growth. They look well trailing thinly over climbers and shrubs.

ANEMONE JAPONICA ALBA AND ROSEA and many of the Helianthus also spread freely. Having allowed for good clumps, according to the size of borders, in preference to dots here and there; if any surplus ones remain use them for vacant places in the shrubberies.

PHLOXES and plants of similar nature should also be divided every other year, and now is a convenient time to do this. Choose healthy pieces from the outsides of the plants for replanting.

MONTERETIAS require periodical lifting and dividing, which must be done without further delay. Select the cleanest and strongest corms for replanting in good positions in the borders, for an occasional group is very effective; but as both foliage and flowers are so useful for house decoration, a somewhat secluded part of the flower garden should be selected for the chief planting, where the cutting would not be so noticeable. We plant them in broad belts on steep slopes for holding together the soil which otherwise would be continually falling down on to walks or grass. If possessing a fair stock of later introductions discard *M. Pottsi* without scruple, for it is inferior to most, besides being almost impossible to eradicate when established.

WHAT TO DO IN THE SHRUBBERY.—The wintry weather in November put a stop to planting, work which probably is now in arrears. Take every advantage of favourable weather to do this without delay, planting, as far as possible, deciduous trees and shrubs first. Evergreens will not suffer so much if left until later; in fact, some of these—notably Hollies—transplant more successfully when new growth starts in May than at any other season.

CUTTINGS OF SHRUBS that were trimmed and just laid in during bad weather must now be put out in nursery lines, laying them rather thickly against a hard and smooth edge; if the soil is heavy fill in with light sandy soil, making it firm. Mulch with rough leaf-mould or spent manure. This will protect them from parching winds, and shade from bright sunshine.

TUBEROUS BEGONIAS should now be sown in brisk heat in pans or shallow boxes, for to flower the same year they require a long season of growth. Seedlings are indispensable for mixing with older tubers for a late autumn display, for they come in bloom as the older ones are on the wane.

BEGONIA WORTHIANA is very apt to drop its seed-pods while green, consequently it is much

more difficult to work up a stock of this than of those seeding more freely, hence tubers must be placed in heat early for propagation by cuttings. Examine roots of Dahlias, Cannas, *Salvia patens*, &c., in store, and cut out decaying parts and dress the wounds with charcoal dust. J. ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

CARNATIONS.—Propagation of winter-flowering varieties should be taken in hand as soon as possible. Some growers wait till March, but much larger plants can be obtained if a beginning is made now. Usually at this time plenty of small side shoots some 3 inches in length can be found on the flowering plants. These soon root if placed in a propagating frame with a little bottom-heat. The frame must not be kept close, as the cuttings should not be encouraged to grow before they are rooted.

CHRYSANTHEMUMS.—Cuttings require constant attention. Remove damp leaves and transfer the young plants as they root to a frame where air can be gradually admitted. Varieties of which sufficient cuttings have not been put in should be attended to without delay. Stools from which sufficient cannot be obtained may be introduced to heat.

GLOXINIAS AND TUBEROUS BEGONIAS.—An early batch of tubers should be started. I prefer using shallow boxes filled loosely with a compost of half-decayed leaves and plenty of sand. Place about two-thirds of the bulb in the compost, and 60° will be a suitable temperature. Sow seeds of these, and also *Begonia semperflorens* varieties if required to flower the first year. Prepare 5-inch pots or pans and fill them with suitable soil. Water well a few hours before sowing. Being very small the seed will require no covering beyond a sprinkling of fine silver sand. Cover with a sheet of glass and keep dark by placing paper on the glass till germination commences.

HIPPEASTRUMS.—Where a large number are grown it is easy to keep up a supply from December onwards. For the earliest flowering select firm bulbs which do not require potting. When top-dressing or potting the bulbs renew the labels each year, and on the back put P for potted or T for top-dressed, as the case may be, so that when selecting bulbs the following year it will be easy to pick out those not requiring potting.

GENERAL REMARKS.—Unsuitably plants of *Codiaeums* (*Crotons*) and varieties it is desirable to

increase the stock of should be taken in hand. Strip off damaged leaves, "ring" as close to the good leaves as convenient, and tie round with sphagnum moss. Seedling *Cyclamens* sown in September will be ready for potting or pricking off, and keep close to the glass in a temperature of from 60° to 65°. The flowering plants will benefit by occasional doses of weak manure water, also such plants as *Cinerarias*, *Primulas*, *Freesias*, and *Mignonette*. Give all possible light to *Nerines*. Keep near the glass in an airy house, and give weak manure-water while making their growth. Cuttings of such things as *Acalyphas*, *Ixoras*, *Pileas*, and *Selaginellas* may be inserted. Keep a sharp look out for green fly on *Richardias* or the spathes will soon be crippled. Show and regal *Pelargoniums* also need occasional fumigation. Plants started in November will have made sufficient growth for the points to be taken out.

Royal Gardens, Kew.

A. OSBORN.

KITCHEN GARDEN.

LIQUID MANURE.—All gardens, great or small, ought to be provided with some kind of receptacle for collecting liquid manure. This should be placed near the manure heap, but on a lower level, so that all the beneficial juices which the manure contains may flow into the tank or barrel provided. It has often been a source of annoyance to see gallons of this valuable plant food running to waste where it could easily have been stored and applied at the proper time to the advantage of the vegetable plot. The present is a very good time to soak thoroughly all ground with liquid manure where Peas, Beans, or Onions are to be grown. All the Brassicas will also greatly benefit by its application.

FORCING RHUBARB.—Fresh supplies of Rhubarb should be put into heat in a Mushroom house or any place where it is dark and warm. Crowns may be covered outside with bottomless barrels or boxes with a few bars laid across the top, then thickly covered and surrounded with rough stable litter or leaves. If leaves are used a greater quantity will be required to produce the necessary warmth. Whichever may be used must be well turned before being placed over and around the crowns.

SEAKALE can be forced outside treated as directed for Rhubarb, but, if wanted more quickly, let four or five crowns be potted in 8-inch or 9-inch pots, watered well, and covered with inverted pots of the same size as those containing the crowns; then place in the warmest forcing pit. Make sure that the top pots have their holes perfectly closed, as the least ingress of light will spoil the flavour of the Seakale. An old mat or sack thrown over the pots will help to keep it thoroughly dark.

SALADS.—Sow Mustard and Cress in shallow boxes or seed-pans, well drained, and filled to the brim with a light compost; make this level, and press fairly firm. Moisten with tepid water, and then sow the seeds thickly all over the surface. Exclude from the light until the seeds germinate. To obviate as much as possible the tendency that Mustard and Cress shows to damp off, the boxes or pans containing it must be placed in a light and airy position immediately after germination has taken place.

TOMATOES.—A few seeds of these should be sown in a seed-pan, well drained, and filled to within half an inch of the top with good soil; cover, and place in gentle heat. When the seed leaves can be seen place in a warm, airy position near the glass, so as to secure sturdy plants.

EARLY POTATOES.—Sets of early Potatoes should be selected and laid in boxes where a little sand or soil has been placed, choosing tubers about 2 inches in length. Cutting up the sets should be avoided. Cover with a little moss and start in a moderate heat, and plant in pots in a frame or at the base of a wall later on.

JAMES JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright, N.B.



HOW RHUBARB IS FORCED WITH AN OLD BARREL.

FRUIT GARDEN.

LATE PLANTING OF HARDY FRUIT TREES.—If for some reason the planting of trees has not been done it should be no longer delayed, that they may have the benefit of the heavy rains so often experienced between now and spring. No reluctance should be shown in doing away with old worn out trees, which, as a rule, produce only a few scrubby fruits on the ends of the branches. Bad varieties, too, should be given the same treatment. Unfortunately, there are plenty of these which never ought to have been placed in commerce, and it will be well for intending planters (especially the amateur) to gather all the information they can as to the varieties they should plant in their particular soil and situation or they may experience a great disappointment. In planting, carefully examine the roots, cutting away any strong ones directly underneath and having a downward tendency, also all damaged portions. Encourage the roots as much as possible to remain near the surface, and see that the soil is made quite firm. The trees should be properly staked to prevent damage by wind, and a mulch of short litter will be of benefit in preventing frost reaching the roots.

LATE VINES.—The Grapes from late Vines being now removed, attention should be paid to the borders. If the crops have been unsatisfactory through shanking or any other cause it is an indication that something is amiss with the roots, and the borders need renovating. Some people are very chary in disturbing Vine borders in case they damage the roots. But much more harm is done by leaving them undisturbed in a cold and poor soil. If the Vines have the advantage of borders both inside and out there need be no fear for next season's crop, provided the work is carried out expeditiously, for the inside border only should be disturbed in one season. Commence by digging out a trench 2 feet or 3 feet wide at the outside of the border. Carefully fork the soil outwards from the Vines till a good number of roots are found. Preserve any large main roots, but smaller ones, which it is scarcely possible to disturb without damage, it is best to cut back. Before adding the new soil examine the drainage and see that it is quite clear. The soil, which should be in a good workable condition, should consist of the best loam procurable, with a liberal intermixture of old mortar rubble, wood ashes, and Bentley's Vine Border Compound. The roots should be carefully laid in as the work proceeds, and inclined towards the surface. It is hardly possible to make the border too firm. E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

CHRYSANTHEMUMS.

PROPAGATING FOR NEXT YEAR'S FLOWERS.—This is one of the most important items in connexion with Chrysanthemum culture, as a good start has much to do with one's ultimate success. Any time during the present month—but the sooner the better—all sections of large-flowering varieties should be chosen and propagated. Select, as far as possible, stout sturdy cuttings which spring from the base of the plant. Some varieties produce fewer than others, and, indeed, one often has to depend on those which break away from the stem. As a rule these are much more prone to form flower-buds prematurely, but exceptions can be taken even in such cases, as I have known some of the finest flowers to be developed from this kind of cutting.

THE SOIL.—It is always well to prepare and mix this a week or ten days before it is used, and some care and attention should be bestowed upon this work. Make a gritty compost, consisting of light fibrous loam and good leaf-soil in equal parts, adding a good quantity of coarse silver sand to render it thoroughly porous. The whole should be well mixed and warmed, and care should be taken to use it when it is neither too wet nor too dry, so that when it is firmly pressed together it will fall to pieces easily.

I much prefer striking the young cuttings singly in 2½-inch pots, and if new these should be thoroughly soaked before using. These should be drained systematically and well, placing an inverted crock over

the hole nearly the size of the bottom of the pot, over which should be put some clean finely-broken potsherds, placing a little clean fibre from the loam over the same. It is of the utmost importance at all periods of the growth of the Chrysanthemum that when water is applied it should be allowed to percolate freely, or frequently, owing to neglect of this, the results will be disastrous. The soil should be pressed in moderately firm and a fair coating of silver sand placed on the surface, as when the cutting is inserted a portion of the sand will find its way to the base and materially assist root formation. Only one sort should be taken off at the time; label each correctly, thoroughly water in and place in the position in which they are to be



TRIPLE ESPALIER PEAR TREE.

rooted as soon as possible. I know of no better place than an early fruit-house which is just on the point of being started. Small propagating frames, or hand-lights even, should be arranged on the stage, or as near the glass as possible, partially filling them with Cocoanut fibre. Little difficulty will be found in attending them in all weathers, and by paying strict attention to watering and keeping them from flagging and damping, they will quickly begin to root. Always sprinkle and water with that which is of the same temperature as the house in which they are placed. Immediately they show signs of starting into growth give a little ventilation, gradually increasing it as time goes on until the lights can be left off altogether, when in a short time after the young plants may safely be removed to shelves in the same kind of house, placing them

as near the glass as possible. Green fly has a particular liking for these, especially when in a young state, and means must be taken to get rid of this at once, either by dipping them in a solution of tobacco water, dusting them with tobacco dust, or, best of all, fumigating lightly with XL All. The quantity of cuttings to be put in will, of course, depend to a large extent on the number one is prepared to grow and attend to, but it is always well to put in more than the actual number required, so that a good selection can be made by the time these require shifting on. Endeavour as far as possible to grow the best varieties, as these incur no more trouble than the out-of-date ones. Anyone wishing to excel or maintain his reputation must add some of the novelties annually to his collection.

E. BECKETT.]

Aldenham House Gardens, Elstree.

THE FRUIT GARDEN.

ESPALIER PEAR TREES.

THERE are various forms of espalier Pear trees; they may be trained horizontally, obliquely, or upright. The former may have one branch or two, while the two latter may have two, three—like the upright tree shown in the accompanying illustration—or even four. Espalier-trained trees have several advantages; they take up very little ground area, and a good many of them can therefore be planted in a small space. The upright or oblique forms are useful for planting at the back of the flower borders to screen the less beautiful plots of vegetables or perhaps untidy reserve garden, while the dwarf horizontally-trained trees look well and grow satisfactorily alongside the kitchen garden walks, or in fact in any place where they are not overshadowed by other trees. Trained trees may be either grown against walls or upon trellises; personally I think they are longer lived when grown on trellises in the open. When ground space is particularly valuable a double espalier or trellis should be made, then the Pear trees can be planted on both sides. Care must be taken to have the ends facing north and south, so that each side may derive equal benefit from the sun. If the ends faced east and west the trees on one side would have a south aspect, while the others, of course, would face due north, and would probably be inferior.

A selection of suitable varieties for espalier Pear trees would comprise Jargonelle (July), Souvenir du Congrès and Michaelmas Nelis (September), Louise Bonne of Jersey (October), Beurré Superfin and Emile d'Heyst (November), Doyenné du Comice and Winter Nelis (December), and later ones Olivier de Serres and Duchesse de Bordeaux.

Y. Z.

APPLE KING OF THE PIPPINS AND CANKER.

In some respects this variety resembles the Ribston; at least, such is the case in some districts. This is unfortunate, as the King of the Pippins is doubtless one of the most reliable croppers grown, but when the trees begin to age they canker badly. It would be interesting to many readers of THE GARDEN who are planting trees at this season to know if canker is troublesome in the warmer parts of the country, as a friend who lives in Devon informs me that it is much less troublesome with him. Doubtless a warm situation and well-drained land may be the reason why the trees are free from the disease. With us the standard trees of this variety begin to canker badly when they are from ten to fifteen years old. A few years later they get so bad that they have to be destroyed, and this is the case with Ribston Pippin, which at the

start does not grow so vigorously as the King, and gets diseased earlier. With us dwarf trees on the Paradise stock are less troublesome, and this is the case with the Ribston. On the other hand, such varieties as Lord Suffield and Cellini Pippin have to be replaced oftener than the Ribston. I have found that these varieties worked on the Crab are not at all reliable. For many years I have noted this, as both are such good cookers and crop well. King of the Pippins often bears when others fail. It is a handsome fruit, and difficult to replace in spite of its tendency in some soils to canker.

Brentford.

G. WYTHES.

A VISIT TO MESSRS. ALEX. DICKSON AND SONS'.

MOST Rose lovers, I suppose, at some time or another promise themselves that one day they will pay a visit to that birthplace of so many of the best of their favourites—Newtownards, County Down, Ireland. I remember doing so a good many years ago, and last year the opportunity came and I seized it. Nor is such a resolution surprising, rather would the neglect of the opportunity be fitter cause for wonderment.

When one tries to recollect what Messrs. Alexander Dickson have done for the Rose, and in so doing "calls home" the long list of Roses we owe to them, and whose flowers now grace the gardens of the world, only a moment's consideration is sufficient to convince one that the list, lengthy though it now is, represents but a tithe of their labour, for it is but the selection of the best of many thousand new seedling Roses they have produced. I say "selection" advisedly, for high as is the standard by which we judge a new Rose, it is not higher than that which Messrs. Dickson keep rigidly before them, and if they err at all in this respect their fault lies rather, I think, in condemning to the fire many flowers that, while beautiful in themselves, do not quite come up to that standard of their own, and are therefore discarded. The standard year by year (automatically almost) gets more stringent in its requirements, and will, I doubt not, continue to do so.

During my visit I was much struck by a feature which appeared to be common to many of Messrs. Dickson's seedlings, and one which they have long striven to obtain, namely, a freer habit of growth, leading to a longer blossoming period. For a close examination of many of the new varieties, and by new varieties I mean more particularly those not yet in commerce, showed that a new shoot that was still flowering from its first head of bloom, ending in the crown bud, was at the same time breaking strongly from each eye all the way up the stem, so that instead of a single stem with a solitary flower or two at its head, these new varieties promise to be always in bloom from June to October.

The feature was so strongly pronounced as to be almost typical, and assuredly is a fresh break in Roses, distinct enough to be called the Dickson type, but of this, no doubt, when the time comes, we shall hear more.

With flowers beautiful in shape, form, and colour already obtained, freedom of growth and the lengthening of blossoming period already on the way, Messrs. Dickson have only one more object left to strive for, and that is scent, and I am hopeful enough to believe that the time will come when the new Roses that leave their nursery will be as excellent in this respect as they are in all others.

H. E. MOLYNEUX.

(To be continued.)

ORCHIDS.

ODONTOGLOSSUM CIRRHOSUM.

BEFORE long this beautiful Orchid will begin to make a good show; it is one of the most useful of the early spring-flowering ones. Though not so variable as *O. crispum* and others, there is a great difference between the best and the worst forms, those having large blotches on a pure white ground being especially valuable. Grown alongside *O. crispum*, it gives little trouble if planted in small, well-drained pots, and well watered during active growth. No dry season, but a slight diminution of the water supply, is necessary in winter.

ODONTOGLOSSUM MACULATUM.

THIS is now in bloom, and perhaps no other species of this extensive genus will carry the flowers so long and with so little detriment to the plant. It is a very variable kind, some of the poorer forms being rather deficient in bright colouring, but all are worthy of care. In a cool, moist house the plants are of easy culture, liking rather more room at the roots than the *crispum* section, and a rough, open compost. No drying of the plants during winter is necessary, as the flower-spikes appear almost before the bulbs have finished growth in many instances.

ANGRÆCUM SESQUIPEDALE.

THOUGH not possessing the elegance and grace of many other Orchids, this singular plant has a beauty of its own, the large ivory white flowers with their long spur being very attractive. It likes plenty of heat and moisture, space and light. The hard glaucous foliage seems almost insect-proof. The plants do best in sphagnum moss and charcoal, a fairly good thickness of this being allowed so long as the charcoal is in lumps sufficiently large to prevent closeness. Pots or baskets may be used for it. If the latter are made shallow and wide they contain a lot of rooting space, and this is just what the plants like. But in most cases, if the plants are left alone on the stage for a little while, they will root into anything in the way of wood or pottery they come in contact with, and the result is a free and abundant growth.

A. H. P.

WORK FOR THE WEEK.

CALANTHES.—By this time most of the deciduous *Calanthes* of the *C. vestita* and *C. Veitchii* section have finished flowering, and their short period of rest may be said to have commenced. It is now necessary to harden and mature the pseudo-bulbs, and while quite at rest they should not, as in the case of the majority of plants, be kept in a temperature much lower than that needed while in flower. Immediately the spikes are cut water should be entirely withheld, and the plants may be placed on a dry shelf close to the roof glass. The Cattleya house temperature will suit them until growth recommences. Those *Calanthes* of the *C. Regnierii* section which are now in bloom must still be afforded water occasionally in order to assist the full development of the spikes. After these are cut the plants should be given the same treatment as advised for those above mentioned.

DENDROBIUMS.—Now that many species and hybrids of this genus are showing flower-buds, discrimination is needed in affording water, especially is this the case with such as *Dendrobium wardianum*, *D. crassinode*, *D. Clio*, *D. Euterpe*, and others that commence pushing new growths when the flower-buds begin to swell. The object of the grower should be to prevent, if possible, these new growths from advancing too quickly.

Therefore too much moisture must not be given either at the root or in the atmosphere, and such growths seldom attain to any great size. If these growths are not kept in check at the proper time the plants rarely flower well, and the few that open do not always come to perfection. Water must be given to the plants at long intervals until the flowers fade, even until the new growths commence to emit roots, great care is necessary, as they are very liable to damp off. Keep the plants in a house where the air is dry and the temperature about 55°. When the flower-buds are well advanced the plants may then be placed in a slightly warmer atmosphere.

Such plants as *D. Ainsworthii*, *D. splendidissimum grandiflorum*, *D. aureum*, *D. Pierardii*, *D. lituiflorum*, *D. nobile*, and its many distinct varieties, also other species and hybrids of this section, too numerous to mention here, that are prominently showing their flower-buds, now require a few more degrees of heat to bring them to perfection. If placed in a light position in the Cattleya house for a few days, afterwards removing them to the south side of the warmest house, their flowers will open clear and rich. The flowering season of these *Dendrobiums* may be prolonged by introducing at intervals those plants whose flower-buds are most forward into a gentle warmth as required. The evergreen species, as *D. thrysiflorum*, *D. densiflorum*, *D. Farmerii*, *D. griffithianum*, *D. Schröderi*, &c., which are now at rest, should be examined periodically to see that none of them are shrivelling too much. If allowed to remain dry for long the leaves will prematurely turn yellow and fall off, which greatly disfigures the plants.

TEMPERATURES FOR THE ORCHID HOUSES.—During January the night temperatures, as maintained by fire-heat, of the various houses in which Orchids are grown should be as follows: East Indian house, or plant stove, should range from 60° to 65°; the Cattleya, or intermediate, house, 55° to 60°; Mexican, about 55°; and the *Odontoglossum* house, 48° to 50°. Although during exceptionally severe weather, when the houses, owing to the unusual amount of fire-heat, are comparatively dry, the amount of warmth may fall a few degrees with benefit to the plants, during mild weather the higher figures may be maintained without injury. By day with sun-heat the temperatures should rise several degrees above those given, and fresh air should be admitted to all the houses whenever practicable.

Burford, Dorking.

W. H. WHITE.

THE KITCHEN GARDEN.

HOW TO MAKE AN ASPARAGUS BED.

EVERYONE possessing a kitchen garden, no matter how small, should have one or two Asparagus beds. There is no reason why Asparagus should not be as common and reasonable in price in season as any other hardy vegetable. Now is a good time to form the beds. These should be 7 feet wide and of any length desired. If there are two or more beds side by side the distance between them should be 3 feet. The soil should be dug out of the bed to a depth of 1 foot and placed in the space between the beds, as it will be wanted to cover these with by and by. On the bottom of the bed should be placed, if available, any garden vegetable refuse which it is often difficult to know what to do with, such as Cabbage and Bean-stalks, Potato haulms, &c. This will make an excellent foundation for the bed as a manure, and will also act more or less for some years in draining it. The Asparagus does not like very damp ground or too heavy or cold a soil. Where seaweed is available this makes an excellent substitute for forming the bottom of the bed. The Asparagus, being a seaside plant, delights in this medium. Where neither of these materials is to be had, place a layer of manure on the bottom, 6 inches thick, digging it in and mixing with the bottom soil of the bed, afterwards treading

the dug ground gently with the feet. (The treading must only be carried out when the soil is fairly dry.) On the top of this place another layer of richer and more decayed manure—say, 4 inches thick—lay over this 4 inches of the soil near by, and tread the whole down, when, after raking over, it will be ready to receive the young roots. A bed of this size will hold five rows—one in the centre and two each side, 18 inches apart and 2 feet between root and root in the rows. Two year old plants are the best for planting, and these may be procured from any local nurseryman at a cheap rate per hundred or thousand. The end of March or the first week in April is the best time to plant. The roots should be laid on the surface of the prepared beds at the distances apart given, and then each covered with a good spadeful of soil. This should be pressed firmly about the roots, covering them over with 3 inches of soil. Take care that the soft crown of the root is not injured by hard pressure. Add more soil to the surface of the beds from the side paths or alleys, bringing it to the same level as the soil over the roots. Draw the rake over the former, and edge the sides of the pathways between with the spade. A few heads of Asparagus may be cut the second year after planting for about a fortnight while the crop is at its best, but none the first year. The third year will furnish a good crop, and every year afterwards with little expense or trouble for a lifetime, provided it is kept clear of weeds in summer and receives a dressing of manure each autumn after the ripe grass is cut off. Connover's Colossal is the best variety. T. E.

LESSONS FROM 1904.

(Continued from page 15.)

VARIETIES TO CHOOSE FOR 1905.—FRENCH BEANS.

NE PLUS ULTRA can hardly be beaten for early work, and Canadian Wonder has not yet been superseded for general use. It is a great cropper, and its fine, long, handsome pods look well on the exhibition table. Some of the new climbing French forms are a great gain when French Beans are much in request.

RUNNER BEANS.

For some reason these did not do so well as in some years, but I am quite at a loss to understand why. Many theories have been given for the failure to set freely as in some years, but none have satisfied me. One of the most common is that it was owing to the bees piercing the flowers to extract the honey, but this, I think, can hardly hold good, as in former years bees were quite as plentiful. I think no one will deny that enormous strides have been made during recent years in the improvement of this favourite vegetable, but the greatest mystery to me is why people will still continue to grow the older sorts, which have long been superseded in every respect. Ne Plus Ultra first led the way, and still remains a very good variety. Last year Bowerman's Hackwood Success was distributed by Messrs. J. Veitch and Sons, being a distinct improvement on existing sorts. Yet another surprise, Lye's Sydmonton Exhibition, which, I understand, has passed into the hands of Messrs. J. Carter and Co. All who have had an opportunity of seeing the splendid samples from time to time shown by that famous vegetable grower Mr. R. Lye, must have been struck with his rare specimens. I grew a few last year to compare with others, and there is no doubt it is quite distinct and the most perfect type of Runner Bean yet seen. Sutton's Prizewinner is also a capital variety. As a white-seeded sort, Carter's Jubilee is very fine.

BROAD BEANS.

I have grown a large number of varieties during the past year for comparison, and these did well, lasting over a long season. Carter's Leviathan still leads the way as the largest and best variety. Very fine also is a green variety, named Green Leviathan and Sutton's Giant Green, both having seeds of a nice green colour, which they retain when cooked. Of the Windsor varieties, Webb's New Gigantic Green was the best. A most valuable addition for late use.

CARROTS.

These have been much better than for some years past, being attacked less by maggot and wire-worm. Veitch's Model, Carter's Summer Favourite, and Sutton's Favourite are all excellent for frame culture and sowing on warm borders and shallow soils. The new improved forms of Intermediate are unquestionably the best for general use. Webb's Prize-taker and Sutton's New Intermediate proved to be the best with us during the past year, both being handsome and of fine colour. Carter's Blood Red is a most distinct sort, the deepest-coloured variety I know, and where it does well is unsurpassed; but, unfortunately, its constitution is not good. I trust by careful hybridisation and re-selecting this will be improved. Carter's Red Elephant grows to an enormous size, and is very handsome, but should be lifted early, otherwise it is inclined to become coarse.

BEETROOT.

Seldom has the crop been better than last year, and there are now a large number of excellent varieties. Why the northern growers so much object to the red varieties I fail to understand, as the best of these, such as Dell's Crimson, are, in my opinion, superior to any of the black sorts, and are of equal, if not better, appearance. The Globe varieties are a great gain for prolonging the season, and for spring use are invaluable. If brought along gently on very mild hot-beds no difficulty will be experienced in obtaining good roots by the end of April, which are far superior to those kept through the winter. Carter's Crimson Ball is a splendid and reliable strain. As a long Beet for general purposes Dell's Crimson still maintains its position. Very good also are Sutton's Blood Red and Carter's Perfection. Of dark varieties Dobbie's New Purple is good, but should not be grown too large. Cheltenham Green Top, when a good strain can be procured, is worth a place in all collections.

BRUSSELS SPROUTS.

It has been an ideal season for these, and everywhere most excellent crops are to be found. These began to button early and promised well all through the winter. Unfortunately, there is a tendency to get these much too large, medium sized, tight buttons, are greatly to be preferred to the larger and coarser sorts. Sutton's Dwarf Gem is just what a Sprout should be, and the strain is thoroughly fixed and reliable. Cambridge Champion is also a grand strain, and one I much like.

(To be continued.)

THE INDOOR GARDEN.

THE BALSAM.

MANY years ago the Balsam was aptly termed "the Prince of Annuals." Since then it has ceased to be popular, and yet, having regard to its luxuriant growth, its branching habit, and its wealth of bloom, one wonders it is so much neglected. It may probably be said "so many new introductions claim attention that some old ones have to make room for them," though it does not naturally follow the exchange is always advantageous.

It is rather more than 400 years ago since Impatiens Balsamina was introduced from Tropical Asia. It is, therefore, a half-hardy annual, though it will do well in the open ground in summer, and when in congenial soil grow into large bushes laden with flowers. I have seen large plantations of double Balsams in Messrs. Sutton and Sons' seed trial grounds at Reading producing blooms of fine quality, but the soil was light and free and the position open and sunny. Time was when at some country flower shows gardeners vied with each other in producing very fine examples of double Balsams in large pots, and they always made an attractive feature. One rarely sees them now. They have gone out with the Petunia and Verbena, and the Begonia, among other subjects, has taken their place. When they were grown for exhibition

and decorative purposes, seedsmen had their fine strains of double Balsams, the Brothers Smith, who had a nursery at Dulwich, in particular were renowned for their strain, and the Balsam was then much grown as a market plant.

One can only wonder who commenced to improve upon the single form which first came to us from so great a distance. Probably Nature itself led the way, for the Balsam, being a self-fertilising flower, no doubt began to show variations which attracted attention and led to the seedlings being cultivated. But we have gone back rather than forward, for I nowhere see in these days such Balsams as I saw forty years ago, the flowers large, double, and brilliantly coloured, true Camellia-shaped, and very handsome. It is a matter for regret that so fine a flower has become so sadly neglected.

One of the most successful cultivators I ever knew used to make two sowings of Balsam seeds, one early in March, and again at the latter end of April. His reason for doing this was to secure a succession of plants. The seeds were sown in pots, in a gentle, moist heat, and as soon as the seed-leaves were perfectly formed they were potted off singly into 3-inch pots and placed in a gentle warmth. They soon filled the pots with roots, then came a shift into 6-inch pots and still kept in heat, and when these were filled with roots a final shift was made into 9-inch pots, in which the plants were bloomed. Then came a removal to a cold frame, which was kept close for a few days while the plants were becoming root-active. Then plenty of air was given during the early part of the day; the lights were closed at night, a sprinkle overhead being previously given, which had the effect of keeping the plants clean, and especially from red spider.

The compost used was good turfy loam and well decomposed cow manure in rather a rough state, two-thirds of one and one-third of the manure, in this the plants root freely; ample drainage was provided, water was plentifully supplied as required, and when the buds were beginning to expand some diluted manure was given about twice a week. By thinning out the flower-buds as required very fine and full double blossoms were obtained on handsome well-branched specimens.

The plants from the second sowing were reared without heat. As soon as potted off singly into 3-inch pots they were placed in a cold frame, and kept close for a few days, then treated to a free supply of air in the early part of the day, the frame was closed early in the afternoon with a moist atmosphere; they were repotted when necessary. They were grown on in the frame until they began to come into bloom, and then removed to a greenhouse, the plants in each case being grown for house decoration.

Objection is sometimes taken to the Balsam that they litter the greenhouse floor through the flowers dropping, but the same can be said of the Fuchsia and other subjects. The finer the quality of the Balsam the less produce is there in the way of seeds.

A. DEAN.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

NAMES OF PLANTS.—Miss O'G.—1, Quercus Cerris var. crispata; 2, Q. C. cana major; 3, Q. ilex; 6, 7, and 8, Q. lucombeana; 9, Q. ilex; 3, 5, and 10 are uncertain, but appear to be forms of Q. lucombeana or seedlings between Q. Cerris and Q. ilex or Suber. —W. H. Cox.—Begonia semper-

florens gigantea carminea, which was raised and distributed some years since by M. Lemoine of Nancy.

PLANTS TO COLOUR (N. A. N.).—We think the nearest approach to what you require would be found in *Salvia patens* (blue), Paris Daisy, *Chrysanthemum frutescens Etoile d'Or* (yellow), and the red of *Scarlet Geranium* or *Begonia*. These are greenhouse subjects. In hardy plants we would incline to *Chionodoxa* (blue), *Eranthis* for the yellow, and *Anemone fulgens* or *Carnations* as red. In annuals we select *Nemophila*, *Cornflower*, or *Forget-me-not* (blue), *Antirrhinum* (yellow), and *Wallflower* or *Field Poppy* (red).

FORCING RHUBARB (H. W. Knox).—Rhubarb is easily forced; it only needs a temperature ranging from 55° to 60°, and nothing can be more acceptable for making tarts and for similar purposes. The stools when dug up may be placed underneath the stage of a stove or that of a warm greenhouse, and covered with ordinary garden soil, keeping them well watered to make the young leaves crisp and tender. If found to be more convenient, the stools may be placed in pots or boxes, when they can be moved from one place to another as may be desirable. When filled the pots or boxes may be set in a vinery or Peach house, and when forcing commences the Rhubarb plants will soon show signs of growth; they will then need frequent watering in order to keep the soil moist, for if watering is neglected the stalks will be tough and stringy instead of solid and crisp. If space can be spared in a Mushroom house for Rhubarb, that will be found to be one of the best structures in which to grow it.

FOUNTAIN BASIN FOR AQUATICS, &c. (C. H. C.). We quite agree with you that the abrupt top line of the cement will look very ugly, and we suggest you remedy this defect by building around and against the basin wall a sort of small rockwork arrangement, which should also cover the surface of the basin wall. Given a series of soil pockets, both on the top and sides, it would be simplicity itself to insert low-growing alpine, as *Campanulas*, *Aubrietias*, *Saxifragas*, *Phloxes*, and any other free-growing carpeting subjects that would at once dispose of the not very pleasing formal line now exposed to view, but would at the same time make the exterior interesting at all seasons. None of the plants used need exceed 6 inches in height, and having due regard to the more surface-covering subjects on the top, they would not detract from the occupants of the basin. With regard to the plants and the mode of planting, it were better that the plants occupy positions at the bottom, where in a bed of rich clayey loam they would pass a much more natural existence than is possible by any other method of dealing with them. With the fountain completed we think the following method of planting will be best: Firstly, place all your plants in pots, very shallow wicker baskets, or even open wire baskets. In these latter the occupants can be fixed securely. With the plants so treated you may now allot each its position at the bottom of the fountain. This done, place in rich clayey loam—any strong holding loam will do quite well—in sufficient quantity nearly to cover the receptacles containing the plants, the soil at the same time serving to keep all in position. Make the soil comparatively firm about the pots or baskets. With the fountain clear of water, all this is not only easy to do, but is calculated to ensure complete success. By these means the pots or baskets used originally are only a means to an end, and presently the roots of the plants, obtaining greater freedom, possess ample opportunities for becoming well established. At the present time there is a wealth of subjects to select from, and you may select the *Nymphæas* of the odorata group in variety: *N. Marliacea carnea*, *N. M. chromatella*, *N. Laydeckeri rosea*, &c. A very showy subject, distinct in leaf and flower, is *Sagittaria variabilis* fl.-pl., and the plants, with the foliage standing well out of the water, could be used around the rock in the centre of the fountain. To afford greater variety *Iris Kämpferi* could be grown in pots whose base may be in contact with the water. The gold fish, which have a decided preference for shade, which the

Nymphæa leaves would afford, live chiefly on the animalculæ in the water. They are especially partial to ant's eggs, which they quickly devour. Such artificial food should not be given more than twice weekly, and only then in small quantities.

WINTER-FLOWERING BEGONIAS (B.).—The newer sorts that have come into cultivation are a great improvement in the habit of growth on those which alone were known at a comparatively recent date. They also bear larger flowers, and more of them, in proportion to the size the plants attain. The section of *Begonias* that is generally known as greenhouse will do through the winter if kept in ordinary greenhouse warmth, say with a night temperature of about 35°, but to have the plants in the condition that admits of their giving the best return, in the shape of the full complement of flowers they can yield, the temperature should be 45° in the night, with a rise in the day in accordance with the state of the weather. A little over the warmth named will do no harm, provided the plants are in a light house, and are kept sufficiently near the glass. Treated in this way they will make more growth than when they only have enough heat to keep them healthy, and it is needless to say that the amount of bloom that is forthcoming will be proportionate to the growth that is made. When the plants are under-potted they should have manure water once a week, by which means the necessary vigour will be kept up through the winter and spring to enable them to give an uninterrupted succession of flowers.

CLIMBERS ON TREES (R. A. Robinson).—We do not call to mind any climbing plant we would care to recommend for the position that would be at all likely to succeed permanently. You may, however, succeed with such things as could be replaced each year, for example, Ivy-leaved *Pelargoniums* growing in boxes could surround the stem at some distance from the trunk of the tree and give a fair amount of blossom. It is the dryness and poverty of the soil in this particular instance that always defies any attempt at growing such things. We have, however, seen the white *Lilium candidum* succeed fairly well when somewhat similarly placed, and as the plant is quite cheap it may be worth trying in your case, and assuming the plants reached the flowering stage, the exceeding purity of the blossoms would be brought into greater prominence by the sombre green of the leafage above. Should you try this it were better to give some fresh soil to the bulbs to start in, and in so doing render what assistance is possible in the exceptional circumstance of the case.

SOIL FOR VINE BORDER (Novice).—The sample of loam for a Vine border you send shows excellent material for potting, but is hardly sufficiently holding for a Vine border. If you could add to it, in the proportion of one-fourth, stiff, retentive soil—but, of course, not sour clay—it would help to render it more holding. A very light, porous soil is not good for Vines, or, indeed, for the making of a border for any fruits, as its tendency is to promote the production of strong thong-like roots rather than those of a finer or fibrous nature. As to what proportion of bone to add to this soil, we cannot analyse it to determine what proportion of phosphates it now contains, but it is well to follow common practice and mix with the soil for the border about one-sixth or one-seventh its proportion of bone, broken quite small; also add one-sixth of old mortar refuse and wood ashes. If your soil is just of the sample sent, add rather less lime rubbish, as its primary object is to help keep the soil open, so that fine roots can run freely in it. You are giving far too much drainage by putting in 1 foot thickness of stone rubble. These deep bodies of drainage have been found to drain borders too dry on ordinary soils. If your border is in a cold, wet position, the body of drainage proposed is not too much. When the drainage is placed in position and provided with an outlet in the form of a small drain to carry off the water, a layer of turf, grass downwards, should be laid over it, and on it the soil about 2 feet in depth. This should be made fairly firm by gentle treading to settle it well down. A border 4 feet in width is ample to begin with for two years, but do not expose the

front bank of the border to hot sunshine in the summer. Give the Vines in the summer a thin top-dressing or mulch of stable manure, but gross feeding until the Vines begin to carry good crops of Grapes is undesirable. Of course, you may add the charcoal proposed. You should get the border made and planted as soon as possible. Do not tie up the Vines tightly at first, as the border may sink a little. Cut the Vines hard back a fortnight after planting, as it is essential they should, to form main fruiting rods, break low down. You will do well not to attempt to force growth the first year. Let the Vines break naturally, and when growth is 2 feet or so long a little gentle warmth may help them materially to form fine fruiting rods. But it is not the biggest rods that make the best fruiting wood. Too often young gardeners, over anxious to push growth the first year, have done so, and found, when these gross rods have been shortened to break back the following season, they have broken badly, and have produced few and poor bunches.

FERN FRONDS DISEASED (Constant Reader).—The enclosed Fern fronds are badly attacked by yellow thrips, a tiny, almost microscopic, insect whose ravages are greatly on the increase. A good deal of the mischief is done while the fronds are young and succulent, and as they develop the discoloured parts become more noticeable, in fact, that is often the first intimation that there is anything wrong. A great number of different subjects are liable to be attacked by them, *Begonia Gloire de Lorraine* being an especial favourite of theirs. As with the common black thrips so well known to gardeners in general these small yellow ones make more rapid headway in a dry atmosphere than where a liberal amount of moisture is maintained; indeed, we have in the case of Ferns known them first to attack a few plants in proximity to the hot-water pipes, and from these spread through the entire structure, thus doing a good deal of damage before the true source of the trouble was ascertained. It is probable that just now you will be able to find few, if any, insects, but with the return of the spring the eggs will hatch out, and the young pests will at once attack the undeveloped fronds. The most effectual remedy we have yet found is vaporising with the XL All Vaporiser, as the poisonous nicotine being distributed in the form of a fine vapour forms a deposit on the leaves which is fatal to nearly all insect pests. Even mealy bug succumb to it if persevered in. We should advise you to vaporise at intervals of a month or so till a cure is effected, after which it may be left considerably longer. While the fronds are for the most part in a dormant condition it is not likely any injury will be done them in vaporising now, but in spring, just as the young fronds are pushing up, especial care must be taken not to make the steam too strong, otherwise some of the more delicate fronds, especially those of the *Maidenhair*, are apt to suffer.

MICHAELMAS DAISIES (E. E. A.).—Much improvement has been wrought in recent years with the varieties of Heath-like growth, and as they are cultivated with the greatest ease, they are plants for the million. No matter whether your garden be large or small, these plants will well adapt themselves to the position and reward you in the early autumn with a display quite distinct from any other subject flowering at the same time. A hundred plants can be procured for two guineas. Of the *ericoides* section we recommend *Aster ericoides superbus* (pale blue flowers), *A. e. Freedom* (a grand sort, white, very dense), *A. e. Clio* (white, very dainty), and the type *Aster ericoides* (small white flowers). Of the *cordifolius* section the following are lovely: *Aster cordifolius Diana* (small blush flowers, very chaste), *A. c. Albulus* (white, shaded lilac), *A. c. giganteus* (blush pink, strong grower), and the type *Aster cordifolius* (white, shaded rosy pink). The *vimineus* section is also a very interesting type, and is well represented by the type *Aster vimineus* (white, minute flowers), and *V. Nanno* (white, a very slender and graceful form of growth).

* * * The yearly subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE CHILD'S GARDEN.

IT is quite remarkable how soon a love of flowers manifests itself in the young child. In a family of children one—it matters not whether it be a boy or a girl—will, before it can speak, stretch out its hands for a flower, and show it to its friends with gurgles of delight. Later, it will insist on always having a flower pinned to its frock, and its choicest gift to its mother or nurse is a handful of flowers picked by itself. Most children enjoy plucking flowers—but that is often only a love of acquisition or destruction—the real child flower-lover treasures its flowers and weeps when they perish. One little French boy, who lived in a pretty inn in the Basses Pyrenees, was furious if we ventured into the flowery glades near his home; every flower was to him a living sentient thing, and when we returned with our hands full of wild *Hepaticas* and *Columbines* he would fling himself into his mother's arms in an agony of tears, remonstrating violently at our conduct in his strange patois. I know, too, of another little chap whose great delight is to pass his arm through his mother's and walk with her up and down the herbaceous borders repeating the names of the flowers, and very often quite correctly. Boys seem to have quite as much love for flowers as girls; indeed, I am not sure the average of boy gardeners is not greater. Of course, for obvious reasons, it is much more difficult for boys as they get older to continue their interest in gardening; but there are some cases when early instruction in that charming art proves of great value in after life; at any rate, it can do no harm if the boy has a marked taste for it. For delicate boys no better occupation can be found, now that people are beginning to realise the enormous benefit to be derived from living in the open air. I know of a boy of ten years old who suffers from chronic asthma, and, consequently, is unfitted for the rigours of school life; he is a born gardener, and is now quite a good *Carnation* specialist. No doubt Bacon was right when he dwelt on the virtues of inhaling the aroma of the freshly-turned earth. Great care, however, should be taken that boys and girls are not coerced, and gardening made a task. It should be essentially a pastime, and it should by no means be allowed to interfere with the more active exercise so necessary for the development of health and general well-being of young children. The skipping-rope should not be thrown on one side or walking neglected for girls, nor cricket and other games for boys.

The hour in the child's garden should be considered as a treat, and a change from the routine of the daily work with the governess or nurse, and then even in that hour the growing child should not be allowed to stoop too much, or for too long a time, and never to undertake too long a job. For instance, in transplanting wild flowers, which is always a delight to young gardeners, they should not be allowed to dig up too many roots at once, and by leaving them to die on the ground destroy more plants than they can use. No waste of any kind should be permitted, and one set of plants should be put in before a second lot is fetched. The child, too, must be told that to hurry is bad gardening, and that each plant must be watered before the task is considered properly finished. The child should be encouraged as much as possible to judge for himself as to the treatment of his plants, and when advice is given it should be in very simple language. I do think botany need be taught at first. When the interest is once thoroughly awakened the intelligent child will

ask for information of his own accord. Children are great questioners, as all parents know full well, and it is a great pity that they are so often put off with a stupid answer. The answer should be given very correctly, and if the child does not grasp your meaning at once he will most assuredly ask the same question again sooner or later, and the second time will understand more. But never decline to answer your child because you do not consider his mind is advanced enough. Nature arranges these matters extremely cleverly, and intends the child to take in only as much as can be absorbed. Do not give the child an inaccurate impression—for instance, when he sows his seeds he will ask eagerly when they will come up. Of course you cannot answer this for certain; but do not reply "in a week" when it will probably take a month, for the disappointment consequent on such an assertion will be great. Children think very quickly, and time goes so much more slowly with them than it does with their parents, alas! They are impatient little creatures, hence the proverbial success of the Mustard and Cress experiment. Try also to persuade your little gardeners not to pick their flowers before they are in full bloom, and give them a small pair of gardening scissors to cut them with, for there is also a right way and a wrong way of gathering flowers. I am not very enthusiastic about the village Board School teaching, but I know one school where the instruction given about flowers is really admirable, and there is many a child of five years old in that school who knows more about flowers and their history, flowers of the garden as well as of the field, than the children of the rich men. The fruits of this training is beginning to appear in the cottage gardens round about, and the children are delighted with the gift of a plant or a few bulbs of a rarer sort.

Now about the plants for the small garden. If the embryo gardeners live altogether in the country I should begin by giving them some of the earliest spring plants, and teach them that their floral year begins in February with *Aconites* and *Snowdrops*, following with a few *Crocus*; but if they spend their winter in London these would be over before they would see them. In this case you might give them plants and bulbs that will flower in April—*Daffodils* and blue and white *Squills* and double *Primroses*. You can take up a plant of the latter out of your border and show the child how to divide the roots. Children love *Polyanthuses* and *Wallflowers*, yellow and orange. It always appears to me that yellow is the colour most liked by young children, particularly by boys. Perhaps this comes from the encouragement given to babies to pick *Dandelions* and *Buttercups* when they can only just toddle. Some children have a decided bias for blue, and in some a colour sense is absolutely lacking—and, of course, colour blindness is not very uncommon.

Much can be done by early training, and your little pupils can be encouraged to plant flowers of harmonious colouring side by side. More can be taught by Nature with her paint-box in an hour than can be acquired within four walls in a year.

AUGUSTA DE LACY LACY.

WRONG WAYS OF SHOWING CARNATIONS.

I FEEL that I shall be expressing the views of a great number of the lovers of our beautiful garden flowers in the following lines, when I plead for more natural arrangement of certain exhibits of cut flowers for competition at the many shows throughout the kingdom. It is more especially on behalf of the *Carnation* that I make this appeal, and I wish to express, in the most emphatic way, my disapproval of the whole system of dressing the blooms, and in particular of the use of that miserable absurdity, the paper collar, so generally used in exhibiting these flowers. What could be more distressing to those who can see its natural beauty in every well-grown flower than to survey the battalions of mutilated specimens arranged in stiff rows, each with the petals flattened and arranged on a round white card with geometrical precision? What chance has one of forming any opinion as to the merits of these flowers (other than colour and form of petal), or of the habit of growth or constitution of the plants on which they were produced, from such mangled remains—for they are little else? Almost the entire stalk is cut away, the calyx is split and turned back all round, and any petals that cannot be arranged in accordance with the dresser's strict ideas of symmetry are extracted, while those that are left are pulled about and arranged, like slates on a roof, for the absurd reason that this is considered necessary before they are ready to enter for a "full-dress" competition. Now there may be a certain number of enthusiastic growers of this lovely flower who delight thus to exhibit and make ridiculous the results of their skill and untiring care, but I think the majority of exhibitors do so simply because they are obliged to, and not because such methods appeal in any way to their sense of what is artistic or beautiful.

These practices are calculated to lower the standard of the *Carnation* by allowing such great defects as a weak stem or a bursting calyx to be effectually hidden, and I contend that the object of bringing flowers together for comparison in competition is all but defeated if such defects can pass unregarded. If the so-called show flowers are not good enough to compete for a prize in their natural form as they grew, would it not be infinitely better to leave them at home and endeavour to grow something better? But if they possess the natural beauties of form, colour, and last, but not least, scent, then why not let us see them in all their natural beauty?

One can understand that the judges have to give their decisions in conformity with the accepted rules, for they are only the administrators of the law. Public taste has not been considered, and I think I may say that most exhibitors would welcome the abolition of paper collars and tweezers, with all the little subterfuges of the dresser's art, and the substitution of a more open and unartificial method of procedure. Unfortunately, it is the confiding public alone who are deceived. When they see these flowers they think they can be grown in the same form as they appear on the show bench, and their disappointment is acute when they come to realise that such results are only to be produced by careful manipulation of the flowers, which, perhaps, without the necessary knowledge of the art of dressing, would be shapeless and disappointing to a degree.

To whom, then, are we to look for the much-desired reform? Are the members of the committees of the different societies who arrange the shows afraid to make a change? I cannot think that they are unwilling. Let them consider the matter well, and for the sake of argument suppose that "dressing" were not permitted and paper collars had not previously been heard of. Can you imagine an exhibitor bringing his flowers so decked out for the first time to a show where all the other flowers were exhibited as grown? What would be the result? Not sufficiently encouraging to warrant a repetition of the experiment, I think.

The converse of this has happened to me. I wished to enter some seedlings for certificates at

"**Kew Guild Journal.**"—We are requested to make it known that in compliance with numerous requests by those interested in Kew, a few copies of the journal are this year available for purchase by non-members of the guild. Application for copies should be made to the Secretary (W. N. Winn), Royal Botanic Gardens, Kew. Price, 1s. per copy; by post, 1s. 2d.

one of our largest Carnation shows, and was told that I must put up one "dressed" and one "undressed" bloom in order to conform to the rules. I have never dressed a bloom and never intend to. So I did not stage my blooms. Surely this is not as it should be. Is it contended that it is easier to judge of the merits or defects of a flower that has been dressed than one that has not? If dressing is to be encouraged would it not be quite reasonable to allow a bloom to be entirely manufactured, taking the best petals from numbers of blooms and placing them on the card without troubling about the calyx and such apparently unimportant details. This would call forth even more skill at the hands of the "dresser."

Let us with no uncertain voice condemn, and by all means in our power endeavour to abolish these practices. Such deep-rooted customs are difficult to uproot, but a start has been made. We are gradually getting into better ways. The classes for so-called "undressed" blooms staged in threes are becoming more popular. This is a good sign and a step in the right direction; but there is room for some reform even in the rules applying to this class of competition. Bands and ties are allowed to be used provided they are removed before the show, a little dressing of the petals is not objected to, and to all practical purposes the flowers are faked.

A burster may be prevented from bursting, and a badly-shaped flower may be pulled into shape; this is not what we want. I should not be content until all flowers are shown as they grow naturally. Let there be separate classes for show and border varieties, and by this I mean a class for those that require the protection of glass, and another class for border varieties grown entirely in the open, but in both classes let the blooms be exhibited with their stems cut long, and accompanied in every case by their own foliage. Then, and not till then, may we hope that a stronger and altogether more satisfactory race of Carnations will spring up, from which we shall be able with confidence to select a collection for growing either under glass or in the open.

At present the really good border varieties that will thrive and give an abundance of well-formed and fragrant flowers in an ordinary garden and under ordinary conditions are only too scarce, but I think by encouraging the exhibition of flowers grown and shown naturally with long stems, say not less than 12 inches in length, we should soon find that there would be little room for the weak, thin-stemmed, bursting varieties, which, although perhaps very beautiful in colouring, are of little use except for exhibition in the classes where such defects can be hidden.

The disappointment that is annually experienced after planting Carnations from lists of names taken at the shows where dressed blooms are encouraged must be very great. I have been told by a Carnation grower that the reason Carnations were so profitable was because people required new plants every year! I think, myself, that more people would buy and grow them if they could rely on their surviving for a few years in their gardens.

The Shropshire Horticultural Society has set a good example by offering prizes for a collection of Carnations and Picotees shown with their own foliage and buds not dressed in any way. This gives encouragement to the really sound, useful varieties which the majority of garden lovers wish to find and possess. If other societies would follow this lead we should, I think, find that a new race of Carnations would spring up.

Bronwyflla, St. Asaph.

W. A. WATTS.

NOTES ON SUCCULENT PLANTS.

COTYLEDON ROSEATA.—Many succulent plants which used to be called Echeverias now come under the head of Cotyledon. A very desirable species which has thus changed its surname is *C. roseata*, a Mexican plant of easy cultivation, which is now beginning to produce its cylindrical flower-heads. The colour-

ing is very pretty, for the leaves and flower-bracts which approach pea-green in their tone, rather than sea-green, are edged and tipped with scarlet, and, though the yellow flowers are somewhat hidden and not very showy in themselves, this vivid colouring gives distinction to the whole plant. It must be grown in full light, or the scarlet flush will not show itself to the same degree. Like all succulents it roots very readily, and cuttings from 3 inches to 4 inches long of the growing points which have not flowered should be taken every spring as early as possible. Old plants that have been well cut back may be retained for a second season, but without somewhat drastic treatment in this respect they are apt to become leggy, and cuttings grown on vigorously and placed three in a pot are often preferable. Growing plants should be placed out of doors in full sun from May to September. *C. roseata* does not want any great heat in winter, but it does require light and an unshaded position in a cool greenhouse, or in a south window where it is safe from frost suits it admirably. It is a plant not often met with, but may be commended as valuable to lovers of succulents on account of its flowering naturally during winter or very early spring.

Cotyledon retusa is another valuable species for winter flowering, and is much better known than *C. roseata*. The colouring of the whole plant is glaucous, and the heads of flowers are borne on long, leafy stems thrown well up above the rosettes of leaves. The scarlet and yellow flowers are Echeveria-like in their character; in fact, it was formerly so classed until the generic name was altered. Both *C. retusa* and the nearly allied *C. fulgens* are Mexican plants, and it is not unlikely that *C. fulgens* may be merely an improved variety. My impression is that they cannot be botanically separated. *C. fulgens* is the finer and more vigorous plant of the two, having bolder and darker leafage, with the bloom of a well-coloured Victoria Plum on the stems and calyces of its crimson-scarlet flowers, and should be chosen in preference to *C. retusa*. Each rosette of leaves forms a good cutting, which only requires to be laid on the surface of a pot on sandy soil to root freely. The summer treatment is identical with that of *C. roseata*.

K. L. D.

NOTES FROM THE MARKETS.

NOTES FROM COVENT GARDEN.

FLOWERS.

DURING the past week there has not been a very brisk trade. English-grown flowers continue abundant. Chrysanthemums and Poinsettias are likely to be less in evidence, some growers having already finished with them. *Lilium longiflorum* was not quite so plentiful at the end of last week, and prices were a little higher. *L. auratum* is still very good, also *L. laucifolium album* and *rubrum*. *L. tigrinum* is plentiful. Lily of the Valley is abundant, but the supply may fall off at any time. It is reported that the best crowns for the coming season are likely to run short, so in the near future prices may advance. Forced Lilac is very good. Long stems now being of such importance, several of the old favourite dowers, such as the white show Pelargonium, double white Primula, Bouvardia, &c., do not sell readily, and prices are much lower than they were before we had such large supplies of *Liliums* and other flowers from retarded stock.

Roses.—Good English Roses are now very scarce. We have seen a few good blooms of Liberty, but reds of any sort are hardly procurable. Sunrise, Kaiserin Augusta Victoria, Bridesmaid, Catherine Mermet, and Mme. A. Chatenay all make high prices. Niphetos is more plentiful, but the best blooms of this command good prices.

Carnations continue very plentiful. The American variety W. Scott is largely grown; the flowers are only of moderate size, but are very freely produced. Mme. Therese Franco still remains a favourite, but

Miss Joliffe is now rarely seen. Winter Cheer is still grown, but the newer American varieties receive most attention. Enchantress always sells at a higher price than any others. Mr. Dutton still holds the lead as a grower of the American varieties. Among Orchids, *Odontoglossum crispum* and *Cypripediums* are plentiful, but Cattleyas still keep up in price.

A good many Narcissi are now coming from the Scilly Islands, such as *Soleil d'Or*, *Gloriosa*, *Telamonius plenus*, and *Paper White*. The supplies from the south of France are very limited. Roses, Violets, *Paper White Narcissus*, and other flowers from this source have gone up considerably in price. Owing to the exceptionally severe frosts the supplies are likely to fall off even more. It is reported that growers will experience a considerable loss, many things being quite ruined by the frost.

Asparagus plumosus is now rather short, and as much as 6d. per spray (short) has been asked. Other foliage plants are plentiful.

FRUIT.

Grapes.—There seems no prospect of any immediate advance in the prices, and at present prices growers can hardly be getting sufficient to make profit. Good Alicante are from 8s. to 12s. per dozen pounds, Colmar 10s. to 24s., but for the latter price they must be exceptionally fine. Muscats do not fetch more than 3s. per pound for very fine samples.

Pears.—It was anticipated that there would be a shortage and that prices would go up considerably, yet there still seems to be a sufficient supply, and fine dessert Pears may be bought from 3s. to 5s. per dozen.

Tomatoes.—Large supplies arrived from the Canary Islands at the end of last week in very good condition. It is the round red sorts that we now get, and in appearance they are almost equal to English. They make from about 3s. per dozen pounds; the finest samples may go to higher prices.

Bananas.—Those from the Canary Islands are far superior in flavour to those from Jamaica. From both sources they are now very plentiful. From St. Michael's we are getting splendid Pineapples, in appearance almost equal to any English grown. They vary in price; good fruits may be had from 2s. 6d. to 5s. each.

Apples.—English are still plentiful. Good Wellingtons were offered last week at 3s. 6d. per sieve, and small samples at much lower prices. Cox's Orange Pippins are still to be had at moderate prices. Very large supplies are coming from California, Nova Scotia, and other American sources. Most of these now arrive in excellent condition. Those from California packed in boxes come out without a blemish; the Newtown Pippins are especially fine. Oranges are plentiful and cheap. Lemons, Shaddocks, Grape Fruits, and others of the Citrus family are all well represented.

THE HORTICULTURAL CLUB.

THE usual monthly dinner of this club was held at the Hotel Windsor on Tuesday, the 3rd inst., when Sir John Llewelyn, Bart., took the chair and a good muster of members and guests assembled to hear the subsequent chat, rather than lecture, of Mr. Joseph Cheal, entitled "Talks on a Journey to Egypt and Syria," illustrated by numerous lantern slides. Unfortunately, the generally dry and desert character of the region traversed by Mr. Cheal detracted inevitably to some extent from its horticultural or botanical interest, but this element was by no means altogether absent, since the celebrated home of the Lebanon Cedars was visited, and some very interesting photographs were shown in this connexion. Mr. Cheal remarked that the generally received idea that but few remained in the original habitat of these magnificent trees was erroneous, since many thousands still remain on the Lebanon slopes in the district he visited and many also in another and distant one. The chief enemy to the trees appears to be the goats, which destroy the seedlings, and, although steps are said

to have been taken to protect them by the Turkish Government, these steps are too much on the vague and uncertain Turkish lines to be of much avail. Some specially interesting slides illustrated the culture of the Mulberry tree in the silk-producing districts. Here the mountain slopes are covered with rudely-built terraces constructed of alternate banks of stone and beds of soil, in which the trees are grown in rows and kept cut so hard back as to be little more than standard bushes. The white Mulberry appears to be the prevalent kind, only a few of the red variety being grown for dessert purposes. The Date Palm is another and very important staple, and it has been said that a single Palm will support a man by its produce, it being, however, borne in mind that the needs of the man in question are orientally meagre. Locust trees, a splendid specimen of the Banyan, antique and weird Olive trees, huge Opuntias with pseudo leaves as big as tennis bats, Bougainvilleas of most luxuriantly rampant growth, steeple-like Cypresses, and an extremely curious tree called the Cucumber Tree, with long, Cucumber-like but hard and leathery fruits suspended on 6-foot to 8-foot stalks, were all figured on the screen, intermingled with Oriental landscapes and scenes embracing camels, Arabs, ancient rock inscriptions, primitive ploughs, native methods of irrigation and cookery, &c., and finally a swarm of locusts covering the ground and the herbage thereon like a veritable insect blizzard. An interesting fact in connexion with the extremely rude methods of irrigation in vogue, consisting of wooden wheels with loosely attached earthen jars suspended by rough cordage, was that several attempts had been made to improve this by modern machinery, but all in vain, for the reason that no facilities existed for inevitable repairs of iron work, while the primitive apparatus could be always and immediately repaired on the spot by the natives themselves at comparatively no expense. Some views of Jerusalem and other places mentioned in Holy Writ were also shown, and, as Mr. Cheal's visit was connected with some mission work in Syria, he was able to accompany their exhibition with many interesting remarks. No discussion followed the lecture, since Mr. Cheal had invited those present to make any desired remarks as he proceeded.

A very hearty vote of thanks was accorded to Mr. Cheal for his welcome contribution to the pleasure and instruction of the club.

LATE NOTES.

National Sweet Pea Society.—It has been arranged to hold the 1905 exhibition in conjunction with the Royal Horticultural Society at Vincent Square on Tuesday, July 4. Upwards of £90 is offered in money prizes, and Messrs. Sutton and Sons are presenting a silver challenge cup, value 15 guineas, in Class I., the society giving the winner a gold medal as a permanent memento of success. The schedule will be in the hands of all members by the 14th inst. The "Sweet Pea Annual" will be published one week later, and will be sent free to members. Full particulars on any matter connected with the society will be gladly furnished by Horace J. Wright, 32, Dault Road, Wandsworth, London.

Historic trees uprooted in Scotland.—A severe gale which swept over the greater part of Scotland on the evening of the 29th ult. and the morning of the 30th ult. did great damage to trees in almost all parts of the country. It was exceedingly severe in the Forth and Tay districts, and some trees of historic interest in the Alloa district suffered very severely. This was at Alloa Park, the seat of the Earl of Mar and Kellie, where two out of three enormous Beeches, called The Sisters, and which are believed to date back to the time of Queen Mary, were uprooted. A large Chestnut, which tradition says was planted by Queen Mary, was also greatly damaged, and many other fine trees were either blown down or damaged. From all parts come accounts of damage done to trees, shrubs, and greenhouses, as well as other buildings.

Fruit growing in the Blairgowrie district.—From the annual returns which have just been compiled it is estimated that the total nett tonnage of fruit despatched from this district in 1904 amounted to about 1,200 tons, an increase of about 200 tons on 1903. At the annual meeting of the Blairgowrie and Rattray Fruit Grower Association, held at Blairgowrie on December 24, the statement of returns submitted to the meeting and accepted showed the following results: Strawberries, 24 tons 9cwt. 4lb., realising £369 7s. 4d., an average of about 15s. 7d. per cwt; Raspberries, 384 tons 16cwt. 5lb., realising £10,659 14s. 4d., or an average of about £1 7s. 8d. per cwt. The previous evening the Stormont Fruit Growers' Association held their first annual meeting at Blairgowrie, when it was reported that 18 tons 18cwt. 5½lb. of Strawberries, and 179 tons 2cwt. 13½lb. of Raspberries had been sold. The Strawberries realised an average of 18s. 10d. per cwt., and the Raspberries 27s. 8d., the gross amount for the former being £356 6s. 9d., and for the latter £4,958 8s. 5d. The following average prices for Raspberries secured by the Blairgowrie and Rattray Association since 1895 are worth recording: 1895, 31s.; 1896, 16s.; 1897, 31s. 6d.; 1898, 38s. 3d.; 1899, 31s. 11d.; 1900, 20s. 5½d.; 1901, 20s. 3d.; 1902, 22s. 3½d.; 1903, 26s. 6d.

Potatoes rotting when stored.—Students taking agriculture as one of the subjects in the final examination for the degree of B.Sc. at the University of Leeds are required to spend at least six months on the University Farm, where each must conduct an experiment on some agricultural subject and present a report on the same. The pamphlet on the decay of Potatoes during storage embodies the report presented by Mr. R. C. Gaut at the examination held in June, 1904, and recommended by the examiners for publication. The report is divided into two parts, the first of which should be of interest to farmers, and the second more especially to those who are interested in fungology.

The vitality of seeds.—It is popularly credited that seeds taken from Egyptian tombs have, when planted, sprouted abundantly; one example of corn seed springing up after a repose of 3,000 years is universally quoted. Gilbert White mentions one of the sliders or trenches down the middle of the Hanger at Selborne known as the Strawberry Slidder, which was covered close with Beeches near a century old. Strawberries once abounded there, "and will again when the obstruction is removed." When old Beech trees were cleared away White noticed that the naked ground became covered with Strawberry plants, "the seeds of which must have lain in the ground for at least an age." Some time ago it was found that seed taken from a British tumulus near Dorchester, and speculatively 1,600 years old, grew up into Raspberry canes and fruited, the Raspberries being publicly exhibited. Similarly, four or five Beans taken from a mummy case and planted (some ten or fifteen years ago) came up. Four Beans sprouted, two lived and grew into plants, and one is still alive, but has never flowered. The pods resemble those of the Carob tree, presumed to be the swine husks referred to in the Bible. These Bean seeds must have been over 1,000 years old, as the tomb from which they were taken was undisturbed. The Rev. W. R. Burgess, in 1865, saw several relics unearthed at Whittlesey, in Cambridgeshire, in the clay under the peat. Their age was undisputed, and they were possibly a relic of the remote time when Whittlesey was an island. One of these relics was about a peck of Mustard seed. The seed was thrown to the surface in the process of excavation, and next year "there was such a crop of Mustard as seemed to show that nearly every seed had germinated."—*Irish Times*.

Mr. Bunyard on fruit culture.—Mr. George Bunyard gave the members of the Maidstone Farmers' Club some valuable practical advice in a lecture on fruit culture recently. He strongly emphasised the importance of packing and grading on the Continental system. On the Continent fruit is collected from the different farms and placed in a central store. There it is properly graded, and the purchaser always knew what he

was buying. It was such combination, Mr. Bunyard said, that enabled the growers to keep prices up. Speaking more particularly of Apple culture, the lecturer instituted a comparison between British and Colonial fruit. He said the latter is better suited for dessert on account of its peculiar sweetness, and he therefore threw out the suggestion that the home grower should pay more attention to producing good kitchen Apples. This is a new point which seems to call for further investigation, partly scientific and partly practical in character. Mr. Bunyard rather suggests that we are labouring under a delusion when we speak of our finer sorts of Apples as being the best in the world. "I may be but a poor judge," says a writer in a Kent county paper, "but give me an English Apple for preference. If there is anything to beat, say, a Cox's Orange Pippin, all I can say is that I have never yet come upon it."

Grants by the Board of Agriculture.—The annual report of the Board of Agriculture on the grants made by the Board in aid of agricultural education and research has been issued. The tardiness of its appearance is more than compensated for by the enhanced fulness of the report. These grants have all sprung up since the present Board came into existence some fifteen years ago. In the year 1903-4 the general grants in aid of educational institutions include £1,000 to Cambridge University; £1,000 to the South-Eastern Agricultural College, Wye, Kent; £800 to University College, Reading; £300 to the British Dairy Institute, Reading; £300 to the National Fruit and Cider Institute, Somerset. The whole of the grants amounted to a total of £9,200. An additional £650 is awarded in the form of special grants for experiments and research.

A Rose show in Australia.—Originally fixed for October 21, the annual spring show of the National Rose Society of Victoria was threatened with failure, and the committee wisely decided to postpone the exhibition until the following week. The Rev. Canon Godby, one of the most prominent of our select but rapidly increasing community of rosarians, did not exhibit, being the first time in twenty-four years that this celebrated grower has failed to stage his favourite flower. The Roses, if lacking in brilliancy, were even as regards quality, and combined to form one of the most charming flower shows ever seen in Melbourne. There was ample room for a large number of visitors to move about, and yet the hall was well filled with exhibits. The ordinary flat tables were discarded in favour of terraced stands, with black cloth backgrounds, on which every one of the many hundred blooms was shown to the best advantage. Rose-covered arches were a feature of the decorative attractions. The director of the Melbourne Botanic Gardens, Mr. W. R. Guilfoyle, through the foreman, Mr. G. Cooper, staged a generous display of decorative Roses, and the Carlton Gardens were also well represented.—*Melbourne Leader*.

Fashion in gardening.—Now we have learnt the better ways, and have come to see that good gardening is based on something more stable and trustworthy than any passing freak of fashion. And though the foolish imp fashion will always pounce upon something to tease and worry over, and to set up on a temporary pedestal only to be pulled down again before long, so also it assails and would make its own for a time, some one or other point of garden practice. Just now it is the pergola and the Japanese garden; and truly wonderful are the absurdities committed under the name of both. But the sober, thoughtful gardener smiles within himself and lets the freaks of fashion pass by. If he has some level place where a straight covered way of summer greenery would lead pleasantly from one quite definite point to another, and if he feels quite sure that his garden scheme and his environment will be the better for it, and if he can afford to build a sensible structure, with solid piers and heavy Oak beams, he will do well to have a pergola. If he has travelled in Japan, and lived there for some time and acquired the language, and has deeply studied the mental attitude of the people with regard to their gardens, and imbibed the traditional lore so closely bound up with their

horticultural practice, and is also a practical gardener in England—then let him make a Japanese garden, if he will and can, but he will be the wiser man if he lets it alone. Even with all the knowledge indicated, and, indeed, because of its acquirement, he probably would not attempt it. When a Japanese garden merely means a space of pleasure ground where plants, natives of Japan, are grown in a manner suitable for an English garden, there is but little danger of going wrong, but such danger is considerable when an attempt is made to garden in the Japanese manner.—*From Elgood's "Some English Gardens."*

Transplanting trees at night.—It has long been known that budding trees, when transplanted in the evening, are more likely to thrive than those moved in the daytime. A French expert has gone a step further, and claims that distinctly beneficial results can be gained by transplanting in the dead of night. He has transplanted large tracts without losing any by the adoption of this method. Trees, he says, should not be moved while their buds are too tender, and the work should be done between 9 p.m. and 2 a.m. The roots should be covered with earth which has for several days been exposed to air and light. This should be settled by copious watering, and not by pressure of the feet. For the first two weeks after moving, the boughs and leaves of the trees should be thoroughly sprinkled.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THERE was a small display of plants and flowers at the Royal Horticultural Hall, Westminster, on the 3rd inst., but this was to be expected so early in the new year and in such bad weather. Orchids were splendidly shown, a gold medal, and the Lindley medal for good culture, being awarded to the group of Cypripediums shown by Captain Holford. One plant carried no less than twenty-four flowers. A feature of the exhibition was a group of the beautiful *Euphorbia jacinthiflora* from Lord Aldenham's garden. The slender, drooping shoots were hidden with the small orange-red flowers for a length of 2 feet, and the dark green leaves on either side made an admirable setting. Several Orchids, a Chrysanthemum, an Apple, and a Pear obtained awards of merit.

FLORAL COMMITTEE.

Present: Mr. H. B. May (chairman), Messrs. C. T. Drury, J. Hudson, J. Green, J. Walker, G. Nicholson, J. A. Nix, H. J. Jones, G. Reuthe, C. E. Shea, C. R. Fielder, C. Dixon, W. Howe, H. J. Cutbush, R. C. Notcutt, C. E. Pearson, W. P. Thomson, E. H. Jenkins, and W. J. James.

Messrs. Cutbush and Sons, Highgate, set up a pretty group of alpine and hardy plants generally. Some of the more interesting were *Iris histrioides*, with azure-blue flowers; *Galanthus cilicicus*, a true winter-flowering Snow-drop; *Crocus hyemalis*, white; *Sternbergia fischeriana*, rich yellow; *Iris histrio*, *Primula megasefolia*, *Galax aphylla*, *Shortia galacifolia*, rich crimson leafage, &c. *Jasminum nudiflorum* and *Cedrus atlantica aurea* were both good, while there were also excellent clumps of Christmas Roses, which always claim attention. Silver Banksian medal.

Lord Aldenham, Elstree, Herts (gardener, Mr. E. Beckett), staged on the floor a most beautiful lot of *Euphorbia jacinthiflora*, with a background of Palms. The brilliant floral bracts of the plants in axillary clusters on the arching stems were very beautiful. The plants attracted the attention of all; they were splendidly shown. As examples of good pot cultivation they reflected the greatest credit on Mr. Beckett. Silver Flora medal.

Messrs. James Veitch and Sons, Limited, Chelsea, contributed quite an interesting lot of flowering plants, in which we noted *Moschosma riparium*, a white-flowered greenhouse shrub from South Africa; *Jacobinia chrysostephana*, with orange-coloured heads of tubular flowers; and *Coleus thyrsoideus*, together with charming baskets of the *Begonia julius*, *Agatha*, and *Agatha compacta*. A group of *Gesneria exoniensis*, with rich crimson velvety leaves, was also noted. Silver Banksian medal.

A group of pot plants and cut sprays of *Moschosma riparium* came from Messrs. Cannell and Sons, Swanley. Cultural commendation.

A group of plants of Chrysanthemum Market Gold, a late variety, was shown by Lord Aldenham, Elstree (gardener, Mr. Beckett). The plants are 4 feet high, and bear many flowers of a rich golden-yellow; very serviceable at this season.

Chrysanthemum Lady Belper came from Lord Belper, Derby (gardener, Mr. W. H. Cooke). This is a very fine pure white flower, with drooping florets, the flowers borne on stiff and long stems. We regard it as excellent for late work.

Messrs. W. Wells and Co., Limited, Kedhli, contributed a few Chrysanthemums; the single yellow indium, with a profusion of its flowers; Treasure, single yellow; Dorothy Fortescue, single white, with tubular florets 4 inches long; and Mrs. Filkins, of the spidery double.

Camellia kelvingtoniana, semi-double, with scarlet and white flowers, was shown in the cut state by Messrs. Paul and Son, Old Nurseries, Cheshunt. It is very handsome.

Mr. H. B. May, Edmonton, filled a long table with groups of pot plants, as *Pteris Childsii*, a prettily crested Fern; *Camellias*, as *Donkelaar* *flori-plena*, *rubescens*, and *Chandleri*; *Primula kewensis*, and other plants. Silver Flora medal.

Messrs. Hugh Low and Co., Enfield, had groups of Cyclamen Low's Salmon, a free, showy kind, with rosy salmon flowers, very pleasing and effective. The new *Smilax* (*Mediola asparagusifolia*) was also shown with vases of Cyclamen in distinct colours.

An award of merit was given to Chrysanthemum Market Gold, which is described under "New and Rare Plants."

ORCHID COMMITTEE.

Present: Mr. Harry J. Veitch (chairman), Messrs. James O'Brien, J. G. Fowler, de B. Crawshaw, J. Wilson Potter, W. Boxall, J. W. Odell, W. H. Young, H. A. Tracy, A. A. McBean, G. F. Moore, H. T. Pitt, J. Charlesworth, Richard G. Thwaites, Francis Wellesley, Jeremiah Colman, H. Little, and F. W. Ashton.

A gold medal and the Lindley medal for exceptionally good culture were awarded to Captain Holford, Westonbirt, Tetbury (orchid grower, Mr. Alexander), for a splendid display of Cypripediums. The plants, which included many of the best varieties, were finely flowered. They were given plenty of room, so that each plant could be distinctly seen. There were some 450 flowers open, the best plant having twenty-four. This was *C. leeanum giganteum*. Many of the plants carried eighteen to twenty flowers, and well deserved the Lindley medal, which is given only for special culture. A feature of the group consisted of numerous different varieties of *C. Euryades*, all obtained from the same seed pod. Particularly well coloured and bright were *C. nitens superbum*, *C. leeanum giganteum*, *C. insigne purpuratum*, *C. Tityus*, *C. leeanum Keeling's var.*, *C. insigne sanderianum*, *C. G. F. Moore*, *C. charlesianum superbum*, *C. J. F. Howes*, and others. An award of merit was given to *C. albioides*, which is described elsewhere. *Laelia autumnalis* Westonbirt variety, with its rose-purple flowers, *Laelia anceps*, and *Sophronitis grandiflora* made beautiful bits of colour, and *Oncidium tigrinum*, with its rich brown and yellow flowers, was very striking. The opinion was freely expressed that no finer plants of Cypripediums had been seen at a meeting of the Royal Horticultural Society.

Messrs. Cypher, Cheltenham, showed a group of Cypripediums that contained many beautiful sorts. Among them were *C. insigne sanderianum*, *C. i. Sanderi*, both valuable yellow varieties; *C. i. Harefield Hall*, with large, heavily spotted dorsal sepal; *C. nitens*, *C. n. superbum*, *C. fascinator*, a delightful rose-purple tinge prevailing; and *C. M. Jules Hye*. *Trichopilia suavis* was well shown, and some varieties of *Laelia anceps*, too, were exhibited. Silver Flora medal.

The rich orange-yellow, crimson-tipped flowers of *Laelio-Cattleya Charlesworthii* (the result of a cross between *Laelia cinnabarina* and *Cattleya aurea*) from Messrs. Charlesworth and Co., Heaton, Bradford, made a charming display, and were quite a bright feature in the almost deserted hall. Silver Flora medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, exhibited a small group of Orchids, among which were *Cattleya Trianae* Alpha, Cypripedium Mme. George Truffaut (Stonei x ciliolare), *C. nitens magnificum*, *C. Dauthieri* (albino var.), *C. leeanum var.*, Mrs. Clinkaberry, and others. Vote of thanks.

Messrs. Sander and Sons, St. Albans, exhibited several very good Cypripediums, notable ones being *C. rothschildianum* (the scape bearing three flowers), *C. lucienianum*, *C. virginale*, *C. exquiritum*, *C. insigne rubens*, and *C. Helen II.* (a hybrid between *C. insigne Chantini Lindeni* x *bellatulum*). The new Orchids are described under "New and Rare Plants."

A cultural commendation was given to Lord Rothschild, Tring Park, Herts, for a splendid inflorescence of *Phalenopsis Aphrodite*.

Botanical certificates were given to *Erides ortegiana* and *Dendrobium eriflorum*, shown by Mr. F. W. Moore, Botanic Gardens, Dublin.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. James Cheal, James Gibson, S. Mortimer, Alex. Dean, Edwin Beckett, Horace J. Wright, J. Willard, W. Poupard, George Kelf, and Owen Thomas.

Some very good Grapes of the variety Black Alicante were shown by W. Shuter, Esq., 22, Belsize Grove, Hampstead (gardener, Mr. J. Armstrong). They were grown within three miles of Charing Cross, and were very interesting on that account.

Several new Apples and Pears were shown, but only two obtained the award of merit; they are described elsewhere. A Pear called Winter Williams (a cross between Williams' Bon Chrétien and Beurré Bachelier) was shown by Messrs. Veitch of Chelsea. It should prove a good late sort. It is almost exactly like Williams' in flavour.

A seedling Potato was sent by Mr. B. Ashton, Lathom Park Gardens, but did not obtain recognition.

THE NATIONAL POTATO SOCIETY.

At a fully attended meeting of this society, held at the Horticultural Club, by kind permission, on the 5th inst., among other matters agreed to was the holding of next autumn's exhibition of Potatoes at the Vincent Square hall, Wednesday and Thursday, November 22 and 23, being the dates favoured. This late time was fixed to suit northern growers, for whom October is too early. In response to a request from a trader to be permitted to give a valuable cash prize for a single tuber of Eldorado, the seed tubers being purchased from him, the committee resolved that no such prizes to which conditions of that nature were attached be accepted. A sub-committee was appointed to prepare a schedule of classes for the show, and it was hoped that it might be prepared and issued early in the spring. A register of new named varieties raised and put into commerce by members will shortly form a very useful means of obtaining

needful information respecting parentage, height of tops, colour of skin and flesh of tubers, season of maturing, and much other useful information. It is hoped that an extensive trial of seedling or new varieties will take place under the control of the committee during the ensuing season. Raisers will be charged fees for their varieties, and be required to send thirty tubers of each one, these to average 3oz. in weight. Subject to what may be needed for the committee's purposes the produce in each case will be returned to the sender. The place of trial will yet be determined. All tubers to be sent in from the middle to the end of March. The committee desire to make the Potato Society one of actual usefulness in the interests of the popular tuber.

TRADE NOTES.

BAKER'S SEED LIST.

MESSRS. BAKER AND SONS, Wolverhampton, write: "We are forwarding to you our seed catalogue for 1905. We also enclose a diary containing £1,000 insurance against accidents. It may be of interest to you to learn that we are presenting a copy of the latter to all gardeners in the employ of our patrons." All sorts of flowers and vegetables are fully described and illustrated in the catalogue, a wonderful lot of annuals are mentioned, and Sweet Peas form a special feature. Fruit trees, shrubs, climbers, numerous hardy perennial and alpine plants are also described. Special catalogues may be had upon application.

HARDY CHRYSANTHEMUMS.

THESE plants have made wonderful strides in popular favour during the last few years, and it is not saying too much to give some credit for this to Mr. William Sydenham, Tamworth. He has raised and introduced many new sorts, numbers of them being great improvements in colour and freedom of flowering, and having a long season. Mr. Sydenham issues a special list of these early-flowering Chrysanthemums, and we would advise those who value beauty and brightness in their gardens during September and October to study it. Few flowers are more useful for cutting than these.

TOOGOOD'S GARDEN SEEDS.

THIS firm's garden seeds have long been famous for their good quality and cheapness, and we are reminded of them by receiving Toogood's annual list of garden seeds. The best flowers and vegetables are described, and many are illustrated. Many sorts of Potatoes, Tomatoes, Peas, Beans, &c., are described. There is plenty of choice for the most fastidious.

SEED POTATOES.

THE catalogue of seed Potatoes of approved merit issued by Mr. William Deal, Brooklands, Kelvedon, contains some interesting reading about the newer Potatoes. Mr. Deal says: "My 11b. tests for cropping, each pound cut to ten sets, came out in the following proportion and order, and from these tests, added to the larger breadths under field cultivation, I have formed my conclusions as to their respective worth." Mr. Deal got 38½lb. from Highlander and 37½lb. from Diamond. From Northern Star and Vermont Gold Coin 29½lb. were dug. Royal Kidney with 28½lb. and King Edward VII. with 24½lb. were next. Mr. Deal's list contains prices, descriptions, and illustrations of all the leading sorts.

GREENHOUSES, BOLLERS, &c.

THE catalogue issued by Messrs. Pearce and Co., the North London Horticultural Works, 644, 646, and 648, Holloway Road, N., points out to amateurs and others who may favour them with their orders, and who may desire to fix the greenhouses themselves that special care and attention are paid to the selection of all materials used, and that the workmanship is of the best. Each section is properly marked and numbered, so that it can easily be re-erected in a few hours. All glass sent with each house is cut exactly to required sizes; the angle pieces for ends are cut, fitted, and marked before packing. They call special attention to this, as most amateurs not possessing a diamond find it a great inconvenience, besides annoyance, in not being able to complete the greenhouse without being compelled to call in a skilled workman.

PUBLICATIONS RECEIVED.

"Quarterly Record of the Royal Botanic Society of London and Journal of the Royal Botanic Gardens Club," "Fundamental Principles of Plant Breeding," by Luther Burbank; "La Grefte et la Taille des Rosiers," "Notes on the Commercial Timbers of New South Wales," "Bulletin of the Department of Agriculture, Jamaica," "The American Journal of Science," and "Bulletins of the New York Agricultural Experiment Station."

CATALOGUES RECEIVED.

Seeds, Bulbs, Fruit Trees, and Roses.—The King's Acre Nurseries, Limited, Hereford.

Seeds.—Messrs. William Paul and Son, Waltham Cross; Fisher, Son, and Sibray, Limited, Handsworth, near Sheffield; W. Cutbush and Son, Highgate, N.; R. Sydenham, Tenby Street, Birmingham; John Peed and Son, West Norwood; James Veitch and Sons, Limited, Chelsea; W. Atlee Burpee and Co., Philadelphia; John Forbes, Buccleuch Nurseries, Hawick; E. P. Dixon and Sons, Hull; Little and Ballantyne, Carlisle; Rowntree Brothers, Chesham and London; Dobbie and Co., Rothsay, N.B.; Stuart and Mein, Kelso, N.B.; Dickson's, Chester; Cooper, Taber and Co., South-west Street, S.E.; and F. C. Pomeroy, Altona, Hamburg.

Chrysanthemums.—W. Cutbush and Sons, Highgate Nurseries, N.

Trees and Shrubs.—J. Backhouse and Son, York.

THE GARDEN

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ON SHELTER FOR TENDER PLANTS.

THE wise man, undoubtedly, is he who cuts his coat according to his cloth, but in gardening matters nothing is harder to do. With such wealth to choose from as we have in these days of flowering shrubs and perennials, bulbs and alpine, for every purpose, there is really no excuse for any of us to attempt to grow tender plants which lie beyond the range of our climate or means of protection. Yet some perverse little demon of imprudence will perch upon our shoulder and tempt us to try this or that lovely thing of more than doubtful hardiness in our own gardens, which perchance we may have seen flourishing in Italy or the South of France. On the other hand, nothing venture, nothing have, and if we avoid all such risks we may miss great gains.

What has to be guarded against in our climate is not cold so much as the disastrous effect of alternate damp mildness, which forces premature growth, and frost, which as prematurely cuts it off, with perpetual changes of wind. The northern counties hold some advantage in this respect over the southern, for usually the alternations are not so rapid, and, on the whole, winter is winter while it lasts.

Permanent shelter in the way of belts and groups of hardy trees and shrubs is essential to every garden, but we do not realise the value of temporary wind-breaks as we might. Large quantities of Russia bast mats are imported into this country every year, and for certain purposes cannot be superseded; but several layers of these are indispensable if severe frost is to be kept out of cold frames, or when tender shrubs have to be protected. Straw, or, still better, reed mats, being much thicker, are more serviceable than bast mats for providing shelter, resisting frost and wind more effectually, and letting off heavy rain as readily as a thatched roof. These mats are light and portable, can be easily rolled and unrolled, and when out of use can be set up on end and kept dry-stored without difficulty. Any intelligent English labourer can be taught to make them, and the material is not hard to obtain, therefore it is profitable winter work for unemployed hands. Such mats can be used to cover the lights of cold greenhouses and frames, or propped up with poles slantways against walls to shelter tender climbers,

which often suffer more from damp trickling down and lodging about their branches than from frost, or they may be readily set up round any choice half-hardy shrub in the open which requires protection. Spare lights for leaning in front of wall shrubs cannot, perhaps, be improved upon as they give light as well as shelter; but these are seldom out of use, and reed mats answer every purpose (save that of light), and can be removed and replaced with the greatest ease, as occasion requires.

For small plants it is a rough and ready way to turn a round market basket over them bodily; while a light mound of coal ashes or even a handful or two of leaves over the roots of many rather tender plants—such as *Dahlia* Stools, *Lobelia fulgens* or *Salvia patens*—will keep them quite safe and happy through even a hard winter. These precautions, however, should be taken in good time, before frost has had a chance to get into the ground. It is often a great protection to let the withered stems of herbaceous plants remain through the worst of the winter, but it gives an air of neglect and unkemptness to the borders which few gardeners care about. We are apt, too, to forget that tender plants are safer, though they may not grow quite so luxuriantly, on the north side of a wall or border than on the south, where they are more liable to sudden and hurtful changes from frost to sunshine.

In a new garden, before one realises either its capabilities or its limitations, it is wise to try all sorts of plants, but after a fair trial it is wiser still to discard all such as are too tender to give real satisfaction out of doors, however desirable they may be. Of course where such accommodation is possible, nothing is more delightful than the shelter of glass, either on a large scale for the protection of winter flowering *Rhododendrons* or other shrubs, or in the form of the modest alpine house, which can be made to yield more real enjoyment than many a more ambitious structure.

HARDY FRUIT CULTURE IN TUBS.

TENANTS' FIXTURES.

If a person plants a fruit tree in his garden it becomes the property of the landlord, unless an agreement in writing is obtained before planting; but if the trees are in tubs they belong to the tenant, and can be taken anywhere, or sold if he so desires. The tubs should be made of lasting material and fairly capacious. The best kind of tubs to use

for this purpose are those made by Messrs. Champion and Co. They are very durable and handsome, and may be had in various sizes. They will withstand much rough and wet weather, which is a great advantage. The best kind of trees are the dwarf standards, and Apples, Pears, Plums, and Cherries may be so grown.

Many people are using Bay trees in tubs imported from the Continent to furnish their courtyards and terraces. These trees are rather expensive, and must have some shelter provided in winter; but fruit trees may remain outside all the winter, and if the right kinds are selected there is no question about the success. And what a chance is here afforded for the experimentalist who wishes to study the effect of different systems of manuring. The cultivator obtains full control of the trees, both root and branch, and the experimentalist may grow quite a number of trees in a comparatively small space.

This is just the work that the amateur gardener would delight in if he once made a beginning. Suitable holes must be bored in the bottom of the tubs, and 3 inches of drainage should be placed in the bottom. The best compost would be two-thirds good turfy loam, and one-third a mixture of old manure, bone-meal, wood ashes, and old plaster or mortar. The three last-named substances would be used at the rate of half a bushel each to each cubic yard of loam and manure, the whole to be well mixed together. Well-furnished and well-shaped trees should be selected, and the spring is a good time to begin. Anyone wishing to try the effect of a few tubs of fruit trees in the courtyard may order in the tubs and furnish them at once. I think they will be better on free-growing stocks, say, Apples on the Crab and Pears on the free stock, because we shall have full control of the roots.

Free-growing, bright-coloured Apples will have the best appearance, and we must study effect in this matter a little. If a good selection of varieties were made, and the culture of the trees carefully attended to, many a garden terrace or walk near the house might be brightened considerably. Fruit trees in tubs have an advantage over flowering plants, for besides being very attractive when in blossom, they are of economic value when in fruit. The following will be useful kinds of Apples for tubbing: Worcester Pearmain, Beauty of Kent, Bismarck, Pomona, Gascogne's Scarlet, Lane's Prince Albert, Keswick Codlin, Mère du Ménage, Newton Wonder, Peasgood's Non-such, Stirling Castle, Wealthy, Orange Pippin, Lady Sudeley, Ribston Pippin, and Allington Pippin; Pears Doyenné du Comice, Louise Bonne of Jersey, Marie Louise, Pitmaston Duchess, Beurré Superfin, and Durondeau; Cherries May Duke and Late Duke.

E. HOBDAV.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, London.

THE BLUE-FLOWERED COLEUS.

From Bicton, Devon, Mr. J. Mayne sends flowers of the beautiful blue-flowered Coleus, one of the most valuable winter-flowering plants under glass. He also sends the following cultural notes: "Blue flowers are none too plentiful in winter, and Coleus thyrsoides is well worth growing where a night temperature of 60° can be maintained from October to February, their time of flowering. The plants should be carefully watered or they soon lose their bottom leaves. After passing out of flower shorten back the plants to within 1 foot of the pot, and place them on a shelf near the glass roof, affording but little water, and as soon as the young shoots are 3 inches long they may be taken off with a bit of old wood attached and dibbled into 4-inch pots of light sandy soil, placing half a dozen in a pot. In the propagating case they soon make roots, and can then be potted off singly into 2½-inch or 3-inch pots. A night temperature of 60° will suit, and the little plants must be placed near the glass. As soon as long enough take off the tops again and insert, treating as before. This may be repeated till the end of May. The later-rooted plants are much sturdier, and flower equally as well as the earlier. If rooted, say in March, they get so tall by the middle of July and lose many of their bottom leaves, whereas by rooting during May the plants keep much sturdier, and can be grown in shallow pits or even ordinary garden frames from the end of June until the end of October if fairly mild weather continues. The growths must be pinched early, say at the second pair of leaves, and the shoots emanating therefrom must be pinched at the first joint; four or five leading growths will result and form good plants for vases, but unfortunately blue does not show to the best advantage under artificial light. Pots 6 inches in diameter will grow them well. A few of the latest cuttings may be grown without stopping, and kept in 5-inch pots are very suitable for grouping. The usual compost used for the handsome-leaved Coleus suits the blue-flowered Coleus, it requires feeding as the pots get full of roots. A stock can also be raised from seed which should be sown in April. I find the flowers last well when cut and placed in water, although the foliage shrivels a bit."

HARDY FLOWERS FROM IRELAND.

From Glenarra House, Ballyvaughan, County Clare, Mr. P. B. O'Kelly sends flowers from outdoors that are remarkable for this time of year. Among them are *Garrya elliptica* from a plant 15 feet high, *Viburnum Tinus* (*Laurustinus*) var. *hirta*, a beautiful evergreen growing some 15 feet high and flowering for three months, Winter Heliotrope (*Petasites fragrans*), double yellow Primroses, blue Primroses, and a Veronica, all of which says Mr. O'Kelly were in flower during December. Many beautiful Irish Ferns and some Saxifrages were also sent.

A SHOWY WINTER FLOWER.

Mr. Mayne also sends flowers of *Centropogon lucyanus*, a valuable warm house plant that is sadly neglected nowadays. Mr. Mayne also encloses the following notes about its culture: "Among warm house plants for decoration during

the winter months few are more showy than this, the soft rosy carmine flowers being freely produced. Old plants should be shortened back a little when the flowers are past their best, and placed in a light position, and as soon as the side growths are 4 inches long they should be taken off with a bit of old wood attached and put in a pan of fine sand to prevent the loss of sap. The plant exudes a milky substance similar to the Euphorbias. Insert in small pots of sandy soil and keep close until rooted, which takes some time. Then pot off into 2½-inch pots and remove the point of the shoot when 6 inches high, this will generally cause young shoots from the base to push up. They are stronger than side-shoots, and carry a wealth of flowers if allowed to grow unchecked, but for pot culture they are best pinched once about ten days after they are placed in 5½-inch or 6-inch pots. Old plants may be grown on for a second year, and require to be cut rather hard back about the middle of March, and repotted in 6-inch or 7-inch pots. After the middle of June we place our plants in cold frames, shading lightly a few hours daily when bright, syringing about 3 p.m. until September, when a drier atmosphere is given to ripen the wood. This plant is useful for baskets; the long, pendulous shoots, wreathed with flowers, are very bright during November and December. When treated thus, the shoots should not be pinched, and a mass of flower will result. A little weak guano water when the pots are full of roots will assist them greatly."

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

January 24.—Royal Horticultural Society's meeting.

January 27.—Meeting of the Lee and Blackheath Gardeners' Society.

January 31.—Meeting of the Redhill, Reigate, and District Gardening Society.

February 1.—Sheffield Horticultural Society's meeting.

February 4.—French Horticultural Society of London meeting.

February 6.—Mansfield Horticultural Society's meeting.

February 7.—Sevenoaks Horticultural Society's meeting.

February 8.—Sheffield Chrysanthemum Society's meeting.

February 10.—Royal Gardeners' Orphan Fund Annual Meeting.

Rosa nutkaensis.—This early-flowering species, belonging to the large family of Cinnamomeae, is one of our hardiest single Roses. It comes to us from North America. The blossoms, which appear usually the second week in June, are a delicate mauve colour, beautiful in their pure tint. There is also a most delicate fragrance perceptible. I think we should value these species more than we do, planting them in shrubberies rather than the less interesting subjects often found there.—P.

A journey in British East Africa.—"Nairobi is 328 miles by rail from Mombasa and 5,450 feet above sea level, and the journey occupied 23½ hours. To a stranger this is one of the most interesting railway journeys possible. On the evening of July 2 we had a grand view of the magnificent mountain Kilimanjaro, in German East Africa, and I had my first experience of East African locusts the same evening, the train rushing through myriads of these locusts circling on the wing. A few days afterwards, at the Experimental Farm, the same kind of locust suddenly appeared in the afternoon and settled on the trees, bushes, and part of the growing crops, changing by their very numbers the appearance of the vegetation to a brownish purple colour. Fortunately, Mr. Linton, myself, and several labourers were on the ground, and by means of smoke from bush fires and the quick movements of the labourers, got the locusts on the wing before any appreciable damage had been done. A nursery of introduced plants is being established on a good scale, and will be the means

of disseminating many useful trees, &c. Several varieties of Cotton are under trial at the farm, and the appearance of the plants, in particular the Egyptian, is promising. The Cotton expert attached to the Agricultural Department has been for some weeks now inspecting the coast lands, and has, I understand, favourably reported on the same for Cotton growing. The present and next year should, therefore, witness rapid strides in the establishment of a Cotton industry in British East Africa. At Naivasha, about 60 miles further up in the direction of Uganda, there is a large Government stock farm of various animals, and the operations of the Department extend over a very large area. Just now great interest is being centred in the possibility of a fibre industry. I believe the soil and climate are admirably adapted for Rhea and Sisal Hemp, and labour is cheap. Settlers are arriving in numbers from South Africa and elsewhere, and altogether the prospects of East Africa for those with the necessary capital are bright. The temperature at the present time ranges from 85° Fahr. in the shade between 12 noon and 3 p.m. to 48° Fahr. at night. The sun is very hot in the afternoon, but the nights are cool, and the early mornings quite chilly. The climate is not as trying as that of the West Indies, and the absence of mosquitoes in the Nairobi District is something to be grateful for. The country is generally adapted for stock-raising and dairying. The cows around Nairobi yield fair quantities of milk, and excellent butter is made. As a game country East Africa is considered hard to beat."—H. POWELL, in *Kew Guild Journal*.

Greenhouse plants for winter flowering.

—*Barleria flava* is one among the many Acanthads that flower during the winter months; indeed, at this season the different members of the order Acanthaceae are strongly represented in any list of flowering plants under glass. The species under notice forms a specimen of rather sturdy growth that is, perhaps, seen to the best advantage when grown as a dwarf plant about 1 foot high, and crowned with a cone-shaped head of bracts from which the golden-yellow flowers protrude. As with the *Apelandras* they do not individually last long, but a succession is kept up from one head for a lengthened period, added to which it is a plant of easy culture. This *Barleria* is a native of India, and was introduced from there in 1816, but it is not often met with. A second species—*B. cerulea* or *strigosa*—is somewhat in the same way, but the flowers are decidedly larger and of a beautiful shade of sky blue, a most uncommon tint among plants now in bloom. It is also a native of India, but of more recent introduction than the preceding. The fact that nearly all flowering plants are now considered with regard to their suitability for cutting from is probably the reason that the many beautiful Acanthads are not more often grown in gardens, as the temperature of an intermediate house rather than a stove is best suited to their requirements.—H. P.

Roses on terraces.—One cannot conceive a more picturesque feature than a series of terraces with the margins draped with the glistening foliage and fragrant-blossomed *Rosa wichuraiana*. If variety were desired then *R. wichuraiana rubra*, a delightful Rose, could be mingled with the type. Its foliage is a bright grass green, which it inherits from one of its parents, *Crimson Rambler*. This one is about the latest to bloom, nearly all of the hybrids emanating from *R. wichuraiana* flowering early in June. I would strongly urge the importance of thoroughly digging the border in which the Roses will be planted, double digging it if necessary. A little wise application of the knife will control any unruly growths that these prodigious growers may put forth, and it often detracts from the beauty of the plants when there is a tangled mass of shoots. No one should miss planting the lovely *Alberic Barbier* and *René André*, and the newer kinds, such as *Edmond Proust* and *Elise Robichon*, are all good.—P.

Gardening in Perak.—In the "Kew Guild Journal" Mr. J. W. Campbell writes from Perak, Federated Malay States: "After a very pleasant voyage lasting four weeks, I arrived at

Penang on May 26, and proceeded to my destination—Taiping, Perak—the following morning. The journey from Penang to Taiping takes about four and a-half hours by rail, and is full of interest. The ground in places along the line is swampy, and I saw some fine patches of *Nelumbium* in full flower; they were a beautiful sight. My headquarters here are on the Larut Hills, at an elevation of 3,500 feet. I am favoured in that respect, as the climate is delightfully cool compared with that of the plains below. From the bottom of the hill to my bungalow is a walk of seven miles through jungle. It is full of interest all the way. One cannot but admire the fine timber trees, many without a branch for over 100 feet up, and perfectly straight. There are also many fine specimens of Palms, numerous Ferns, *Selaginellas*, &c. All round my bungalow are Tree Ferns and *Nepenthes*. *Lantanas* are as common as Brambles at home. The blue *Ageratum*, which grows here about 2 feet high, is very pretty, but it is an awful nuisance as it grows everywhere on this hill. It was introduced, I believe, by Sir Hugh Low. *Browallia elata* is going to be common here also, having escaped from cultivation and coming up everywhere. On the hill plantation we go in for raising English vegetables. Many of them do well and are much appreciated by the European residents."

Apple Fenn's Wonder.—This handsome Apple, to which an award of merit was given at a recent meeting of the Royal Horticultural Society's fruit committee, is not unlike *Mère du Ménage* and *Hollandbury* in form. The chief objection to the variety *Mère du Ménage* is that its colour is more often that of Beetroot than red, whereas that of Fenn's Wonder is scarlet, and heavily striped on a yellow ground. It emanates from the gardens of Henham Hall, Suffolk, the seat of Lord Stradbroke, and Mr. Simpson, the gardener, mentions that it is grown there on the Crab stock and fruits well, even in years when Apples are scarce. When an Apple shows such fine form, rich colour, and free-cropping qualities in the Eastern Counties, it is natural to look for equally fine results, even if not better, in more favoured localities. It should make a superb Christmas shop Apple.—A. D.

The Mezereum.—Considering how hardy *Daphne Mezereum* is, and the beauty and sweetness of its flowers, it is far too rarely seen in shrub collections. It may be that many do not consider it hardy. This *Daphne* makes but little display as a bush in summer, as it does not branch much, and its leaves are small, but when spring comes is when it cheers us. It is almost the first shrub of all to flower, and its perfume is so sweet that it betrays the presence of the plant before it is seen. There are three varieties of it. The red is the normal form, I believe, and there is a white and also a double form of the white. Nicholson mentions an autumnal flowering variety, but this one I have not seen. In addition to its use for its flowers, this *Daphne* finds favour with many nurserymen as a stock for the little evergreen spreading sort, *D. Cneorum*, for which purpose it answers well, stimulating a stronger growth than would be had on its own roots. *Daphne Mezereum* is readily raised from seeds; the seeds ripen in late summer, when the flesh should be washed off them, and the seeds kept in slightly damp soil or sand, in some quite cool place, and be sown outdoors in the early days of spring. Those with greenhouse facilities would find it better to sow indoors in boxes in March or earlier. It remains to be said that the red berries displayed in summer are considered very attractive.—JOSEPH MEEHAN, in *Florists' Exchange*.

Pear Santa Claus.—It was probably a somewhat unwise act on the part of the Royal Horticultural Society's fruit committee to give an award of merit to a Pear having just recently been given the above name, because it may be found ultimately to have a quite different name after all. On the other hand, whatever may be the name, it is a very meritorious Pear, and has considerable excellence in midwinter, when really good Pears are scarce. Colonel Brymer, who sent it to the Horticultural Hall, mentions that it came originally from Belgium, and has been grown at

Dorchester in what he characterises as a rather dark corner for thirty years, by which description it is fair to assume that the variety originally had a name, and, still further, that the fruits were very good indeed for a dark corner's production, and should be much finer and better if grown on a more open aspect. The fruits in shape greatly resemble those of *Bourré* Diel.—A. D.

"Le Jardin."—The eighteenth volume of *Le Jardin*, a journal published fortnightly in Paris, has been dedicated by the editor, M. Henri Martinet, to M. Albert Truffaut, the widely-known Versailles nurseryman, to whose efforts we owe the introduction of many good plants, e.g., *Adiantum versailleense*, several *Crotons*, *Vriesia Marie*, and *Dracæna truffautiana*.

Fine forms of Iris stylosa.—The fine form of this most delightful winter-blooming Iris sent you by Mr. Caparne, and mentioned on page 2 of the 7th inst., is doubtless *I. s. var. pavonina* sent to me some years ago by Messrs. Dammann of Naples with two other broad-leaved and strong-growing forms named respectively *I. s. lilacina*, with large, very pale lilac flowers, and *I. s. marginata*, with flowers of a deeper shade of lilac, margined with white. I received last autumn from another grower another Iris named *I. s. pontica*, but from its totally different habit of growth I do not think it belongs to the *stylosa* branch of the family at all. Its flowers also are comparatively poor and dull in colour.—W. E. GUMBLETON.

The Pyracantha.—A specimen of this growing on the Manor House, Byfleet, Surrey, is worth going miles to see. It covers a space of some 30 feet by 15 feet, and although I have come across plants as large as this one, I have never seen the quantity of berries on the same space. There must be thousands of them, and in some places the laterals are so thickly packed as to form a solid mass of colour. The effect is very fine; it is, indeed, impossible to find anything more impressive in the outdoor garden at this season of the year. The soil is light, and the drainage is good, as the Manor House stands on a gentle eminence, so that the growths get well ripened, and there is not that over-luxuriance that is apt to characterise this *Cratægus* when growing in heavy land. Mr. Brown, the gardener, makes a practice of pruning annually in February, the result being that the whole of the space is covered with a dense mat of deep green, lustrous foliage, which shows the rich colour of the berries to the greatest advantage.—J. CORNHILL.

Shrubs that flower in January.—The number of trees and shrubs which blossom naturally in January is greater than many suppose, and some are decidedly showy; they form a very interesting collection worthy of inclusion in every garden. Probably the finest of all are the Witch Hazels (*Hamamelis*), of which *H. arborea*, *H. japonica*, *H. j. var. zuccariniana*, and *H. mollis* are grown. Then come the early-blooming Heaths (*Ericas*), which are represented by *E. lusitanica*, a tall shrub with white flowers, and the two dwarf ones *E. carnea* and *E. mediterranea var. hybrida*, both of which have reddish blossoms. Of the former there is also a variety with white blooms. Of the Honeysuckles there are two, *Lonicera fragrantissima* and *L. Standishii*, both of which are fragrant white-flowered Chinese shrubs. *Chimonanthus fragrans* and the variety *grandiflora* are both in blossom, bearing fragrant cream and golden flowers respectively. *Rhododendron dauricum* is conspicuous by reason of its pretty rosy purple blooms. *Daphne Mezereum var. grandiflora* is in flower, while the flowers of the type are just beginning to expand. *Arbutus Andrachne* still bears many flowers which have stood for some weeks. The *Laurustinus*, *Viburnum Tinus*, is smothered with open flowers and buds, while walls are made gay with the golden flowers of *Jasminum nudiflorum*. Here and there the tiny white star-shaped blooms of *Spiræa Thunbergii* are beginning to open, while, if the weather is mild, blossoms may usually be found on *Prunus davidiana* towards the end of the month. Occasionally this list can be lengthened, *Berberis japonica* and *Cydonia japonica* among other things sometimes

being in flower in January. Those previously mentioned, however, are the most sure, and with the exception of *Prunus davidiana* all are to be seen in blossom at Kew at the present time (January 7).—W. D.

Potatoes at Wisley.—When persons presumably familiar with the conditions under which alone Potatoes can be dealt with by the fruit and vegetable committee of the Royal Horticultural Society continue to send samples to the Horticultural Hall for the committee's opinion, it seems evident that they are very anxious to give the variety such publicity as the meetings and Press reports afford. Very good Potato trials commonly resulted at Chiswick, but far more efficient ones may be looked for at Wisley, where the soil is of very diverse texture and more retentive, the surroundings open and airy, and entirely free from those vitiated conditions which had grown up around Chiswick. It may be unwise to expect too much from the Wisley soil at first, as without doubt it had become materially starved under the lack of culture which for some time before it passed into its present hands had existed. Liberal manuring is a matter of absolute need to restore to the ground that nutriment so essential to crop production, and manure is costly to obtain. Still, there can be no doubt that a good area of ground will be deeply worked and well manured, so that Potatoes in particular and other products in general may have a fair trial. That there will be sent in, as in the past, many seedlings there can be no doubt, but the council of the society would do well to purchase a few tubers of some ten or twelve of the more recently introduced varieties, especially those which have been so highly lauded, and grow them beside some older ones of good reputation. A trial at Wisley should be one of the very best of its kind in the kingdom, and its results be specially indicative of varietal merit or otherwise. No vegetable creates the same interest or is so important in commerce as the Potato.—A. D.

Market Chrysanthemums.—A marked difference between the exhibition of Chrysanthemums grown for market, which was held in the Essex Hall, Strand, on the 14th ult., and the ordinary Chrysanthemum shows so numerous in the month of November, was the almost total absence in the former of flowers of an undecided tint, whereas among the huge blooms on the show stands they are far too numerous. Various subtle tints figure in their description, such as rosy pink, deep pink, lilac pink, rosy lilac, pale purple, purplish rose, and others, but in reality they all come to one level, for cultivation plays a considerable part in the colour of the blossoms, and even where slight differences exist they are scarcely noticeable during even the brightest part of an average November day. The market grower, on the other hand, finds that the best prices are realised by flowers of a clear decided colour, hence he discards all those of a nondescript tint and grows only the best, whether old or new varieties. The finest of the market kinds are referred to in the report of the Essex Hall show (THE GARDEN, 17th ult.), and in an article on "Flowers at Covent Garden" in the issue of the 7th inst.—T.

The British Gardeners' Association.—A meeting to consider the advisability of forming a local branch of the association was held in the Co-operative Hall, Ipswich, on Wednesday, the 4th inst., Mr. J. Morgan, of the well-known firm of Messrs. Thompson and Morgan, presiding over a large and representative gathering of local gardeners. In the course of his address, Mr. W. E. Close, a member of the committee of selection and a former resident in Ipswich, dwelt particularly upon the benefits which would result to employers from the establishment of a reliable source for the supply of thoroughly competent and trustworthy gardeners. He strongly urged the establishment of a local branch, and asked all those who cared for the uplifting of their profession at once to become members. After a well maintained discussion, a resolution approving the programme of the association and the formation of a local branch was carried unanimously. Mr. E. G. Creek of Westerfield House Gardens, Ipswich, consented to undertake the duties of local secretary.

A valuable new Chrysanthemum.

One of the newer Chrysanthemums, Tuxedo, is giving us great satisfaction here this season. It is a late variety, and the bronzy old gold shade of its flowers is very distinct and good. It has been grown in pots, as well as planted out of doors during the summer months. Plants from cuttings of last year, after making their growth and being pinched back in the usual way, were lifted from outdoors in September, and planted in the vacant borders of a Tomato house, where they have flowered extremely well. This variety seems to be vigorous in growth, but is apparently not likely to give as many cuttings from the base as we should wish. That, however, may be an accident of culture or of the season. In this neighbourhood (East Sussex) all Chrysanthemums have been remarkably late in flowering, the season having been too hot and dry for them. This has been particularly noticeable where it has been necessary to bring water from a distance—a calamity not very unusual in this district—when plants in the open ground have, in most cases, to take care of themselves, and those in pots to make the best of whatever supply they can get.—K. L. D.

Brightness without flowers.—One is apt to over-estimate the value of flowers in a garden, or perhaps, I should say, to under-estimate the importance of those trees and shrubs and plants whose flowers constitute their least valuable claim to notice. There is as much beauty in the stems and leaves of some plants as in the blossoms of others, as much welcome colouring in leafless trees and evergreens as in the choicest flowers of summer. And because they contribute to the gaiety of the garden when flowering plants are resting beneath the frost-bound, snow-capped ground, we should reckon them doubly valuable. Dull indeed is the garden during winter whose leafless trees give no bright note of colour, whose shrubs are berryless and count no rich evergreens among their number. There is beauty and brightness at all seasons of the year in a carefully planted garden. That it is flowerless means nothing, for the brilliant yellows and reds of bare stems, the crimson of berries, and the welcome greenery of evergreens are made doubly attractive by the contrast of dull cheerlessness that forms their setting.—A. H. P.

Commercial flower-growing in California.—In answer to the question of a correspondent residing at Fruitvale, California, regarding flower-growing as a business in California, the *Pacific Rural Press* in a recent issue replied: "You can certainly grow Carnations, Violets, and a host of other flowers successfully in the open air in your locality, and will secure very gratifying winter blooming. Orchids, however, will require careful attention to very sharp requirements in the matter of heat and moisture, and must be house-grown, as they are at the East, except, of course, that in this climate much less firing is required. There is no comprehensive book on flower-growing in California, nor is there a special journal devoted to that purpose. Several of the latter have been undertaken, but have failed for lack of support. You will find valuable suggestions in the catalogues of the leading seed houses, which are advertising in our columns. If you intend to take the matter up commercially, it will be advisable to start in a small way; learn by experience and by conference with the San Francisco florists whom you must expect to supply. Commercial flower-growing is possibly less successful in California than at the East, because our climate is so favourable that everyone grows flowers, and the prices from San Francisco decorators and florists are, as a rule, rather low. To find out what they want, however, and when they want it, and then adapt your cultivation as closely as you can to attain those ends, will constitute the most important things in such an enterprise."

Shrubs for town gardens.—In gardens near a town it is best to plant trees that lose their leaves annually. Near a large town this is imperative, for the smoke and fog cover them with dirt and soon make them unhealthy. When the leaves fall in autumn, of course all the accumulated dirt falls with them, and a start is made in the

spring with clean young leaves. Evergreens in a town garden, unless they are washed with a hose occasionally, have a very dismal and depressing effect, so the fewer the better if the garden is to look bright. The Lilac is a good town shrub, and there are now some very beautiful varieties to be obtained. Marie Legraye (the double white) and Charles X. (purple) are two of the best. Flowering Currants are delightful objects in spring when in full flower, and so are some of the ornamental Crabs, for instance *Pyrus Malus floribunda*, one of the prettiest spring-flowering shrubs. The sweet-scented *Mezereum* (*Daphne Mezereum*) and *Dier-villa* (*Weigela*) *Eva Rathke*, with crimson blooms, are both excellent for the purpose under consideration. Then there are the *Laburnum*, the *Gelder Rose*, some of the *Thorns*, the *Almond*, *Wistaria*, *Magnolia conspicua*, and *M. stellata*. Of winter-flowering shrubs you may plant the yellow *Jasmine* (*J. nudiflorum*) and the *Winter Sweet* (*Chimonanthus fragrans*); both these should be in every town garden.—Y. Z.

Plants for a north border.—One of the prettiest pictures I ever remember in a garden was a wall facing due north covered with *Roses* and winter *Jasmine*, and at the foot of it a narrow border of the *Japanese Anemone*. The *Jasmine* came into bloom in February or March, the *Roses* came out in July, and the *Anemones* (pink and white) in September. Thus in an almost sunless position there were flowers at three different periods of the year. When the *Roses* came into bloom, one could gather blossoms until the frosts came; before the *Roses* were over, the *Anemones* came out, and when the *Anemones* were over it was not very long before one looked forward to seeing the first bursting buds of the yellow *Jasmine*. The *Roses* were some of the old free-growing garden varieties, not very beautiful so far as the form of the bloom was concerned perhaps, but still they were fragrant and very acceptable. The *Japanese Anemone* is one of the best plants I know for a north border. *Solomon's Seal*, *Primroses*, *Violets*, *Wood Anemones*, *Forget-me-nots*, and some of the *Lilies* thrive well with very little sunshine.—Y. Z.

ROUND ABOUT A GARDEN.

LOOKING FORWARD.

IN midwinter your garden usually bears its most plentiful crop of good resolutions for the growing year; but unfortunately autumn was the proper time to carry most of them out. Yet, between now and spring, there is plenty of time to do many things; and at least you can jot down in a note-book the means by which you propose to remedy the various shortcomings which the bareness of winter has brought to view. The chief fault of most of our gardens is plainly revealed at this season as lack of originality in design and arrangement. It is chiefly for this reason that they look so bare and desolate. Where no attempt is made to give special character to a garden it looks just like every neighbour's garden, a bare open space of grass and gravel walks with brown flower-beds backed by shrubs. One glance shows you all that is to be seen in it in winter, and all amounts to little more than nothing.

THE SKELETON OF A GARDEN.

Yet there is no garden so small that it cannot be made distinctive and interesting in winter, without detracting in any way from the show of spring or summer flowers. There is no garden so small, too, that it cannot be made to appear much larger by breaking up its outline and partially interrupting the direct view from end to end. In a very large garden the most beautiful effect is obtained perhaps by cunningly-devised vistas which here and there give you long, straight glimpses from end to end, suggestive of infinite space of varied beauty;

but in a small garden it is the lack of space which the gardener's art should conceal by presenting different aspects from different points of view, although these may not be many yards apart. The main difficulty lies in laying out the paths, which bear the same relation to a garden as the skeleton of an animal to its living frame. Primarily a garden path is intended as a means of going to and from the house; and, since people who come and go are as often as not in a hurry, one cannot make the way so devious as to tempt them to make illicit short cuts. Even with a carriage drive one must not depart very far from the prosaic straight line—which is the shortest line from any one point to any other point, as geometry teaches—without producing a pretentious effect, and at the same time wasting much garden space which could be far better used.

THE DIVISION OF A GARDEN.

In the case of the ordinary type of garden, which must have at least one drive to the front door and one footpath to the side door, the best arrangement is that these should be united during the first half of their length, and the point of their divergence be hidden from view of the house by a well-grouped shrubbery, with a fringe running up the sides of the footpath all the way to the side door. Thus the garden is naturally divided into three parts, one which is visible from the gate, another through which the carriage drive curves behind the shrubbery to the front door, and a third, which is privately hidden from view by the shrubs that conceal and shelter the footpath throughout its length. Having thus three separate spaces to deal with, differing entirely in aspect, shape, and shelter, one has infinite opportunity for variation, which is the very life of gardening for pleasure.

A PLEASANCE.

It is an especial advantage in thus laying out a garden that the secluded path, shut off by the fringe of shrubbery by the footpath, will always be of irregular shape and comparatively long and narrow. With a meandering path and alcoves where you can rest it can be filled with interest from end to end, no two nooks and scarcely any two yards of the flower-borders being alike. Here you can grow all kinds of rare and graceful plants which require shelter, and here in earliest spring and latest autumn you will look for welcome hardy plants blooming in defiance of the seasons. Here, from whatever quarter the wind may blow or the sun may shine, you will know quiet recesses of shade and shelter where you can sit in peace from all the world watching the birds.

NOOKS FOR ALL SORTS OF BEAUTIES.

Here, too, it is easier in the narrow space to devise rock-banks and descending paths where mountain plants and Ferns will flourish, and by placing supports for Creepers wherever there is room beside the wandering path you can have all the beautiful effect of a pergola without its stiff artificiality; it is, moreover, only in such narrow sheltered ways that you can plant any large variety of flowers in the grass, because in any large space the grass, being necessarily left unmown where the flowers are sprinkled, produces an effect of untidiness for which the beauty of the blossoms scarcely compensates. Where, on the other hand, the grass only fills small nooks and bays, now on one side and now on another of a winding path, between arched and pillared creepers and groups of sheltered shrubs, with flowering plants and Ferns, you have ideal sites for

clustered bulbs and roots whose flower-gems shine all the brighter for the green setting of the grass. Indeed, so valuable is this narrow section of a garden, partly from its sheltered privacy against all winds and unwelcome interruptions, and partly from the infinite variety of small gems of plants which you can place there for their individual beauty—a beauty too delicate or minute, often, for display in the open flower borders of the outer garden—that before long your attachment to it grows until a sort of distinction comes to be observed regarding it. The rest of the garden, it will be tacitly understood, belongs more or less to the gardener—this is your very own. As the expert in producing floral displays he will have more or less of a free hand with the outer flower-beds; but in the little garden pleasure that you love he will not dare to stick so much as a trowel into the ground without express instructions from you as to the exact inches which each new treasure is to occupy. E. K. R.

THE LILIES.

(Continued.)

LILIUM PARRYI (Watson).—Dr. Parry's long-tubed Lily. A very beautiful yellow-flowered Lily from California. It was for a long time lost to cultivation, and even now is rarely met with in gardens. The bulbs are small and composed of a few jointed scales in the form of a rhizome; the stems 3 feet to 4 feet high, pale green, slightly rooting from their bases, the leaves alternate and lance-shaped, and the flowers yellow, broadly funnel-shaped in outline, the upper third of each petal reflexing, and slightly spotted inside with purple, or quite unspotted; very fragrant. They vary from 4 inches to 6 inches in length, and are borne on long pedicels and poised at right angles with the stem. A unique Lily as regards colouring and dainty shape. Rare in cultivation. Flowers in July. Discovered near San Geronio Pass by Dr. Parry 4,000 feet above sea-level in a cool, moist climate.

This plant had the misfortune to be described as a marsh Lily early in its history as a garden plant, and successes in its cultivation have been few and far between as a result of this treatment. It prefers a root-run of peat and a cool, fairly moist situation, and if slightly shaded so much the better. It succeeds well amid Ferns in the hardy fernery and other cool but not wet places.

L. parviflorum.—See parvum.

L. parvum (Kellogg).—The small Panther Lily. A very dainty, free-flowering plant, the most graceful of all the Western Lilies, and worth every care to establish. The bulbs are small and in the form of scaly rhizomes, the scales 3-jointed to 4-jointed, yellowish white, the stems 3 feet to 4 feet high, more rarely 6 feet, slender, the leaves numerous and lance-shaped, and the flowers are borne on long foot-stalks, coloured orange red, dotted yellow, the reflexing tips a rich red; they are 2 inches to 3 inches across, and from ten to twenty appear at one time. It is common in cultivation, and flowers in

August. It flourishes at an altitude of 6,000 feet on the Sierra Nevada chain of California, and is considered by many to be only a form of canadense, but distinct from it in its character as a garden plant. Collectors who have seen colonies flowering in a wild state are loud in its praise, and it is evident that cultivated specimens have not attained the highest development possible for them.

For culture and uses see pardalinum, to which this plant is closely allied.

(To be continued.)

NOTES ON HARDY PLANTS

HARDY CYCLAMENS.

EVERYONE is familiar with the greenhouse Cyclamen (*Cyclamen persicum* in its numerous varieties), but comparatively few are well acquainted with the beautiful hardy Cyclamens that are so suitable for planting in the rock garden, the border, or wild garden. If planted in a suitable position they will almost take care of themselves. Other stronger growing plants must not be allowed to encroach and rob them of light and

These latter are only fit for clothing the soil under trees or for covering bare spaces in an easy manner, which, as the subject of the present notice, can be associated with the choicer occupants of the rockery. It forms a thick mat of bronzy foliage at all times attractive, but especially so in the winter time, when most things have lost their verdure. In light soil that does not get close and sour this *Acæna* increases fairly freely, and will soon cover a square foot of ground; but in heavy soil it is apt to take on a rather miserable appearance, and under such conditions is not worth a place in the garden. When the natural staple is rather retentive plenty of leaf-soil or some peat should be added, which will keep it in a sufficiently open condition to allow of the free formation of underground stems.

Byfleet.

J. C.

PENTSTEMON BARBATUS TORREYII.

OF the several perennial Pentstemons grown in the flower garden there is little doubt that this is one of the best. Unfortunately, it proves short-lived on heavy soils if left in the open during winter, so that to ensure a stock it is necessary to divide up the old roots in the autumn and place them in pots or boxes. We have to treat our plants in this way: They are put out annually at the beginning of April in a thoroughly open position, with the



A BORDERING OF CYCLAMEN REPANDUM BY A GROUP OF PLANTAIN LILIES (FUNKIA).

moisture. They do excellently beneath the partial shade and shelter of shrubs or large growing plants, as the illustration admirably shows. A fairly moist soil and a position sheltered from cold winds and midday sun may be said to form the essentials to their successful culture. The Cyclamen shown in the illustration is *C. repandum*, more familiarly known as *C. hederæfolium*. The plants are in the garden of Mr. R. Dimsdale, Ravenshire, Lechlade, Gloucestershire, to whom we are indebted for the opportunity of figuring them. *C. hederæfolium* is a good autumn-flowering Cyclamen; it is at its best in September and October. It is a native of the Southern Alps and the Apennines. The flowers of the type are rosy purple and faintly scented. There is a white variety which blooms even more freely than the type. Y. Z.

ACÆNA MICROPHYLLA.

THERE is something very taking about this little species. When in the full enjoyment of conditions that promote luxuriance it only just rises above the soil, differing in this respect from other members of the family, which run up to a height of several inches, and are more or less of lax habit.

result that the spikes reach a height of between 5 feet and 6 feet, and flower almost from the ground. I have seen the flower-stems fully 6 feet high. A correspondent recently remarked, when comparing this plant with *P. barbatus*, that the flowers were "a washed-out red, quite pale and unattractive," but this description of the colour seems somewhat erroneous to me. The colour is a reddish salmon, and a very desirable one, as there are few plants with flowers of a similar tint. I have never found *P. Torreyii* to be less vigorous than *P. barbatus*, and the former certainly flowers more freely than the type. *P. Torreyii* is seen to the best advantage when planted in a group, and the pleasing, distinct colour is always welcome.

A. E. THATCHER.

MIMULUSES.

To grow these successfully seed should be sown early in January on fine sandy soil in shallow pans, and these should be placed in a comparatively cool house, where the seed will soon germinate. In a few weeks there will be hundreds of strong seedlings to lift and prick out into pans or shallow boxes, and in these they would be ready to pot up singly, and, if desired, early in April or by the middle of the month be planted on a cool border outdoors, where they will on good ground produce

a most brilliant mass of flowers, and will present features of beauty such as few other flowers give. The seed should be sown thinly, and if the seedlings are well hardened before planting out so early the foliage may get a little discoloured, but late frosts do little or no harm. Sutton's Giant and Rosy Morn are excellent varieties, and well adapted for beds or borders. T. B. FIELD.

ALPINE WALLFLOWER.

(CHEIRANTHUS ALPINUS.)

THIS alpine Wallflower makes a brave show when in bloom, and is one of the best things one can use for a dry bank, or for any position where plants are exposed to great heat and drought. The soft yellow blossoms, when produced in great profusion, as is the case with established plants, are very effective. Like its near relatives, the garden Wallflowers, it dies away in time, and therefore needs renewing or should get attention in some form. The best way is to put in a few cuttings every season. They strike freely in the open ground in March, so that old, ugly, long-stemmed plants can be done away with. Like other members of the family, this *Cheiranthus* cannot live happily in heavy ill-drained ground. The roots have a tendency to run down deeply, and if they come, during the resting time, in contact with stagnant moisture decay sets in, and the plants take on a miserable appearance.

Byfleet.

C.

THE ROSE GARDEN.

THE DECLINE OF CONTINENTAL NOVELTIES.

CONSIDERING the natural resources of the Continent it seems remarkable that so few really first-class Roses are now received from there. Take the Hybrid Perpetuals, with the exception of Frau Karl Druschki and Commandant Felix Faure, nothing startling has been sent out during recent years. And may not the same be said of the Hybrid Teas and Tea-scented? I am afraid our Continental friends are sacrificing everything to mere fashion. Decorative Roses are the rage, so everything must be set aside for them. If the Hybrid Perpetuals and true Teas were looked after, I imagine they would yield as good novelties as of old. M. Pernet Ducher adheres to the Hybrid Tea, and some grand novelties have come from him, but why does he not subject the Hybrid Perpetuals to his hybridising skill? It seems to me the craze for Hybrid Teas, with their abundant blossoming, but far too frequent absence of fragrance and brilliancy of colouring, will bring about a revulsion against this race, and buyers will demand the Hybrid Perpetuals, where all the good qualities of a Rose, save free autumn flowering, are to be found.

PLANTING ROSES.

AT this season of the year the land is frequently very wet, and planting is done at great risk to the future success of the plants. If the ground has been trenched, as it should have been quite a month ago, plant as soon as the surface is dry. Do not plant Roses when the ground is sticky. The plants will take no harm if they are heeled in—that is, if the roots are put in a hole or trench and covered with soil. They may remain thus until February or March if needful, but I do not advocate this. In planting take out holes 1 foot square and deep enough to allow the junction between bud and stock to be buried an inch deep. The roots of standard Roses should be about 6 inches below the surface; it is best to place the supporting stake in position before planting the tree. Long shoots are best shortened. Put a little fine soil on to the roots first, then tread firmly. Firm planting is very essential. Manure must not come in contact with roots when planting. After planting a little well-decayed manure is spread over the surface. This prevents the ground from becoming

hardened by parching winds, and it provides a certain amount of warmth to the roots, which is helpful.

PROTECTING TEA ROSES.

IT does not take long to draw 4 inches or 5 inches of soil over the crowns of bush Tea Roses just similar to the process of earthing up Potatoes. But no one would neglect to do this if they appreciated its importance. When hard frosts come the tops may be cut, but the eyes beneath the soil are plump and sound. Of course with frost-cut branches we do not obtain the large bushes they do on the Riviera, but at least we save our plants, and they break up from the base with wonderful vigour. Some dry leaves scattered on the ground after the earthing up are helpful, but I would not advocate other litter being used unless frosts are very severe, and then it should be perfectly dry. Heather or Gorse make first-rate protective material. Standard Teas are more liable to injury by frost. Their heads may be filled with dry Fern or Gorse, and thus protected would pass through an ordinary winter unharmed, but in very cold districts I think it is best to dig up the trees and lay them in under a north wall. If a few boards or thatched hurdles are placed obliquely over them during the coldest spell they will remain uninjured, and may be replanted in April.

RAMBLER ROSES THE FIRST SEASON AFTER PLANTING.

IT seems a rash thing to cut down the fine growths of the free-growing Rambler Roses the spring following the planting, but all expert growers are agreed that this is the correct treatment. I do not say cut down close to the ground, but about a foot from the base. A new growth is the result, springing from low down, and a well-furnished base to the plants is thus provided. The next season little or no pruning is done, for now we look to the new growth, which should be well ripened in order to provide the flowers, so that there is no special advantage in procuring very long growths to the plants; rather see that the roots are good and the growths sturdy and well ripened. It is very important to provide a good root-run for fast-growing Roses at the commencement. A hole 3 feet deep and 2 feet or 3 feet wide is none too large. The soil is thus well broken up, and an opportunity is afforded to provide drainage if needed. The same soil may be returned if in good condition, incorporating with it some well-decayed farmyard manure and bone-meal, the latter about a 6-inch potful to a barrowful of soil. Climbing Roses, whether on arches, pillars, or walls, need nourishing by the aid of liquid manure during the summer. Drainings from the cow-yard or shed are as good as anything, but, if not available, a small tub placed in an out-of-the-way corner can be converted into a manure tub. Put in three or four spadefuls of cow manure and fill with water, allow it to remain two days, then apply it to the plants neat and copiously. After the second filling with water renew with fresh manure. A small bag of soot thrown into the tub is also of much benefit. Crimson Rambler thus treated will yield those glorious trusses of rich-coloured flowers which only healthy, well-nourished plants produce. High feeding and a plentiful supply of new well-ripened wood is the secret of success with the Rambler race. P.

TREES AND SHRUBS.

THE PHILLYREAS.

AMONG the many evergreen shrubs that are in a general way ignored, or almost so, by planters must be included the Phillyreas, which are certainly worthy of more attention than is usually given to them. They are not particular as to soil or situation, provided a reasonable amount of drainage is ensured, while the plants are naturally of neat growth, and the deep rich green of the leaves is always pleasing. Added to this

their merits as flowering shrubs must not be passed over. Except *P. decora* (*P. vilmoriniana*) a strong family likeness runs through the whole of them, though minor points of difference are very common. The "Kew Hand List" names four species, viz., *P. angustifolia*, *P. decora*, *P. latifolia*, and *P. media*, whereas Loudon, in referring to the genus, says: "All the kinds in cultivation are nothing more than varieties of one species." Which view is correct is at least an open question, for when Loudon wrote the distinct *P. decora* had not been introduced, and of the other three species individual plants or varieties approach each other very closely. All are natives of the Mediterranean region. Those usually regarded as species are *P. angustifolia*, which derives its name from the small narrow leaves. This will attain the height of 12 feet, and as much through, though in width, stature, foliage, and other particulars individuals vary a good deal. *P. latifolia*, as a rule, is more upright and compact in habit than the preceding, while it is also readily distinguished by its broadly ovate leaves. *P. media*, in general appearance, is about midway between the two preceding. *P. decora* is of recent introduction compared with the others, and has only been in cultivation here for about twenty years. It forms a free-growing shrub of a somewhat spreading habit of growth, but whether it will attain the same height as the others time will prove. At present, however, such does not seem likely, for an isolated specimen some 4 feet or 5 feet high will be usually twice that in diameter. The leaves of this are much larger than those of the others, being from 4 inches to 5 inches long and well over an inch wide. Their colour is a deep green, but the surface is less glossy than in the smaller leaved forms. This is worthy of consideration from a flowering point of view, as the white sweet-scented blossoms, though small, are freely borne in axillary clusters towards the close of spring. These Phillyreas may be propagated by cuttings of the half-ripened shoots taken about midsummer and placed in a close frame shaded from the sun till rooted. T.

SUNBURN.

THE following notes are confined to sunburn in hardy deciduous trees and shrubs, and will be of interest to your readers after a perusal of Mr. Dallimore's summary of trees and shrubs with coloured foliage. There are many highly ornamental subjects, more particularly those with golden and variegated foliage, that lose much of their beauty and effect owing to their leaves being scorched by the sun's fiercest rays. The result is an ugly browning of the affected foliage, and is, in the more serious cases, followed by premature fall of the leaf, as in the Golden Sycamore (*Acer Pseudoplatanus* Worlei) and *Ulmus campestris* Louis van Houtte.

Gardeners are sometimes at a loss to know where to place a subject so as to obtain for it a position in which the plant will develop to the greatest advantage, and there are amongst those affected by light of too great intensity many that we can ill afford to do without in the garden, either as specimens or for massing, so that positions should be selected for them where they would be shielded from the midday sun. Hence the enumeration of those trees and shrubs that most commonly suffer from sunburn will serve as a guide to intending planters. In some few instances, i.e., the golden and variegated Oaks, the second growth in July and early August obliterates, to a large extent, the burnt and unsightly foliage on their first or spring growth.

Varieties of the same species exhibit widely different degrees of resistance to sunburn. This is well illustrated in varieties of the common Sycamore, *Acer Pseudoplatanus* foliis albo-variegatis (the old variegated form) does not burn, or but slightly, whereas the varieties *Leopoldii* and *Worlei* are often disfigured. Especially is this the case with the last-named.

Below is a list of those subject to sunburn, previously mentioned varieties being omitted:—*Platanus acerifolia* Suttnerii, *Sambucus* (canadensis?) aurea, *S. racemosa* plumosa aurea, *Corylus*

avellana aurea, *C. maxima atropurpurea*, *Fagus sylvatica alba marginata*, *Fraxinus americana foliis variegatis*, *Castanea sativa aurea marginata*, *Acer Pseudo-platanus Nizeti*, *Diervilla japonica* *D. Loosmansii aurea*, *Philadelphus coronarius foliis argenteo-variegatis*, *Neillia opulifolia aurea*, *Ulmus Dampieri aurea*, *Æsculus Hippocastanum foliis aureis variegatis*, and *Æ. H. foliis argenteo-variegatis*.

The above is not intended as a complete list, and many are purposely omitted because their liability to sunburn is only slight.

Knapp Hill, Surrey.

F. H. MATTHEWS.

THE FLOWER GARDEN.

CARNATION GEORGE MAQUAY.

THIS, the best of all white border Carnations, was raised in the garden of Mr. William Robinson, who wrote of it: "At the time we compared it with all the whites known, and found it much more vigorous and better." It has all the qualities of a good border Carnation, it is a splendid grower, a profuse bloomer, never bursts, and has erect, stout stems. Such as Trojan, Wild Swan, The Briton, Ptarmigan, and others are inferior to it.

THE DRYAS

A PROSTRATE shrub grows over the rocks of our mountains. Its branches, outspread and closely pressed against the stone or soil, have a remarkable character of bright, fresh beauty. It is the pretty *Dryas*, admired by all who see it, even by those who have no special botanical or horticultural enthusiasm. Swiss Tea is the name given it by the mountaineers of the Vaudois Jura, because they use it for the preparation of an infusion that has digestive and stomachic properties.

Dryas octopetala is the prettiest of our alpine Rosaceæ, for its low bushes, covered with shining, dark green, prettily-toothed leaves, that are silver-white underneath, have a distinctly ornamental value. It has, besides, large, handsome, and numerous flowers shaped like those of the wild Rose, with eight to ten pure white petals surrounding a bunch of golden yellow stamens. The flowers succeed each other all over the leafy cushions throughout the summer and into the late autumn. Even in seed it is ornamental, with its pretty feathery tufts that stand up like those of the *Pulsatilla*. *D. octopetala* is found upon most of the mountains of the northern hemisphere, at from 2,500 feet to 3,000 feet; it likes rocky places, and especially limestone, though it is also found on the granite, but here it is less beautiful. It abounds upon the glacial moraines, sometimes reaching an altitude of 9,000 feet.

Its congener and near relative, considered, indeed, to be only a variety, is *D. lanata* (Stein), so named from the silvery pubescence on the upper sides of the leaves, which in *octopetala* are always smooth and glabrous. It is also distinguished by other characters, especially by the leaves being smaller and less deeply toothed, and by the form of the flowers being more globular. In gardens *D. lanata* flowers from May till winter, for a longer time even than the type, and its seed is rarely fertile. It must have limestone, succeeding only on rocks of a calcareous nature. *D. lanata* grows

in the Tyrol, and especially on the central Dolomites.

Two other species of *Dryas* are known, and both are in cultivation; they are *D. Drummondii* (Rich.) and *D. integrifolia* (Vahl), a synonym of *tenella* of Pursh. *D. Drummondii* grows in the mountains of Eastern Siberia and Northern and Arctic America. The leaves are slightly pubescent and greyish green, not so deeply toothed as in *octopetala*, and a little longer and narrower. The flowers are small, drooping, with yellowish petals. A much less beautiful species than ours.

D. integrifolia comes from Greenland, mountains of the United States and Canada. It forms low, quite caespitose tufts, covered with leaves that are shining on the upper sides, and are much like those of *D. octopetala*, only that they are much smaller, narrower, and almost without denticulation. The stamens are bright yellow and shorter. It is rare in cultivation, being more difficult to grow than the three others.

All the species of *Dryas* like full sun, rock, and a spongy soil formed of the decay of leaves. Leaf-mould and sand, with one-third of loam, is what suits them best. They are easily grown from seed, and may also be increased by division, by layers, and by cuttings.

Floraire, Geneva.

HENRY CORREVON.

DWARF GUNNERAS.

THE name *Gunnera* is usually associated with those majestic members of the family which come from Chili and the higher elevations in Brazil, namely, *G. chilensis* and *G. manicata*. As might be expected, when taking into consideration the geographical distribution of the genus, which, although essentially belonging to the southern half of the hemisphere, is spread over a considerable area, representatives being found in Australia, New Zealand, the Malay Islands, South Africa, South America and adjacent islands, as well as in Mexico, the various species show a great range of variation. In contradistinction to the well-known giants above mentioned, the genus in New Zealand is represented by a number of dwarf creeping plants, some of which form dense carpets of deep green foliage,

barely an inch or two high. Plants similar in growth belonging to the same genus are also found in the extreme southern portion of South America as well as on the adjoining islands. Of the half-dozen species of *Gunnera* in cultivation the first to be introduced was the South African *G. perpensa* as long ago as the year 1688. This species is not hardy, and has orbicular leaves, somewhat resembling those of the Winter Heliotrope (*Petasites fragrans*).

Nine species are found in New Zealand, and of these three are now in cultivation. They are:—

G. arenaria, of which seeds were received at Kew in the year 1895, from Mr. T. Kirk of Wellington. Several of these germinated the following spring, and soon made good-sized tufts of numerous fleshy, glabrous leaves, scarcely more than 1 inch in length. These are somewhat ovate in shape, with dentate margins. Amongst the leaves are produced the inconspicuous flowers on short, stout stems, followed by spikes of pretty crimson berries just raised above the foliage. This plant, which is also known under the name of *G. densiflora* var. *depressa*, is found on sand dunes in both the North and South Islands.

G. dentata is a swamp-loving plant, found only on North Island at an elevation of 1,000 feet to 3,000 feet, forming large patches on wet ground. Its leaves are thinner in texture than the above, obovate in outline, with deeply incised margins. Seeds of this species were sent to Kew, in 1899, by Mr. L. Cockayne of New Brighton, Canterbury, and they have grown into tufts of matted creeping rhizomes.

G. monoica.—This species has been in cultivation for several years, and has creeping rhizomes, with reniform or orbicular leaves, less than 1 inch in diameter, crenately toothed. It is found in both the North and South Islands, growing in cool, moist situations, from sea level up to 3,000 feet elevation. The red and white spherical berries are borne on panicles mostly hidden between the foliage. It is an interesting little plant, and with the other two is suitable for moist positions in the rock garden. Seeds of *G. flavida* were sent with those of *G. arenaria*, but failed to germinate. The fruits of this are said to be very pretty, varying from crimson to yellow, on spikes 3 inches to 4 inches high. Other New Zealand species are *G. densiflora*, with purple fruits, *G. microcarpa*, *G. mixta*, *G. Hamiltoni*, and *G. prorepens*, all of similar dwarf habit.



A BED OF THE PURE WHITE CARNATION GEORGE MAQUAY IN MR. WATTS' GARDEN AT ST. ASAPH.

G. magellanica.—This South American species, which is somewhat larger than any of the New Zealand kinds, ranges in habitat from Chili to the extreme south of the continent, as well as being found on the neighbouring islands. Plants of it were sent to Kew from the Falkland Isles, in 1895, by Mr. A. Linney. It is variable, some forms being much more hairy than others. The creeping rhizomes are stout, and spread freely, soon covering a good space, producing at short intervals orbicular or reniform leaves, $1\frac{1}{2}$ inches to 2 inches in diameter, on petioles of about the same length. The flowers are borne on branched spikes equal in length to the petioles of the leaves, and are succeeded by red fruits. Although these dwarf creeping species are not of much value where effective plants are desired, they are interesting enough to grow in pans for the alpine house, or in suitable positions in the rock garden, to show the contrast between the different members of the same genus.

W. IRVING.

IPOMÆA RUBRO-CÆRULEA IN THE OPEN.

IN THE GARDEN, Vol. LXIV., page 266, Mr. Falconer, writing from Pittsburgh, United States of America, says of this *Convolvulus*: "This grows luxuriantly in warm, sunny places out of doors, but I do not think your English summers are long enough for it to bloom in the outside garden, therefore you had better treat it as an indoor vine." That this correspondent is, fortunately, mistaken the accompanying illustration will prove. For two years I have had this exceedingly lovely *Ipomæa* in the same position out of doors. It is growing close to the front door of my house, on a wall facing south-east, on which is trained the beautiful single white *Rosa lævigata*, which bears flowers $5\frac{1}{2}$ inches across. Wires are strained perpendicularly about 2 inches distant from the walls, and up these and the shoots of the *Rose* the *Ipomæas* climb. Every visitor sees the flowers, which are the admiration of all beholders, their pale blue colour being exquisite and most uncommon in the garden, and their size being fully 4 inches in diameter. The exceptionally unfavourable summer of 1903, dismally cold and rainy, was much against these warmth-loving plants, but even then they were very beautiful. Last year, however, they were far more charming, growing with much greater vigour and flowering more abundantly. One morning forty flowers were expanded, presenting a most delightful picture, but unfortunately a high wind made the taking of a photograph impossible. This was the greatest number produced on one day, though twenty or thirty were often open. On the day that the photograph here reproduced was taken there were twenty-seven expanded flowers, seventeen of which can be seen in the illustration. Unfortunately, the fugitive blossoms last but a single day, but every morning the sight of from a dozen to forty freshly-expanded blooms rewarded the first glance at the wall. It has always been a matter of the greatest surprise to me that so few employ this *Ipomæa* for the adornment of their gardens during the summer and early autumn. My practice is to raise the seeds in heat, and to grow the seedlings on separately in $4\frac{1}{2}$ -inch pots in rich porous soil. When they are about 2 feet in height and set with flower-buds they are gradually hardened off and planted in the open during the last week in June.

South Devon.

S. W. FITZHERBERT.

COLOURED PLATE.

PLATE 1266.

THE SWEET PEA.

THE BEST VARIETIES AND HOW TO GROW THEM.

THE star of the Sweet Pea is still in the ascendant—indeed, it soars higher and higher every year. It is very apparent that gardeners, both amateur and professional, are at last coming properly to appreciate its unlimited utility in the garden and in the home, not to speak of it as one of the most

Roses, superb in form, glorious in colour, magnificent in size, wonderful in substance, lack perfume. It has been bred out of them, and while the man who fights in the exhibition arena does not deplore this one iota, the cultivator who grows Roses for his garden and his home considers it a matter for keen regret. Something in the same direction applies to the modern Carnation, but no such charge can be maintained against the Sweet Pea. The blooms have increased in size, substance, and abundance, and they remain Sweet Peas still—fragrant, floriferous, elegant.

The improvement of the Sweet Pea has been, in a sense, the work of the last quarter of a century, and it is nothing short of remarkable

to see what has been done in so brief a period with such a paucity of material. For this all thanks are due to the veteran Henry Eckford, whose labours with the flower have been assiduous. Practically all the best varieties of to-day show his expertness as a raiser, and doubtless will do so for many years to come. Now there are others in the field of evolution, and they are heartily welcome as long as they retain all the excellent points of the flower, the addition of desirable attributes being alone permissible. Let us, however, leave this phase of the subject, and turn to the culture of the plants.

Here, again, the Sweet Pea differs from other flowers, for it is within the reach of everyone who cares to grow it. In the small town garden the plants have neither the vigour nor the floriferousness of those in the purer and more invigorating atmosphere of the country, but they will grow and give great pleasure and satisfaction. Nowadays many of us are, unfortunately, forced to take into consideration the question of cost in our gardening operations, as well as other things, and the Sweet Pea scores, as usual, for superior returns can be secured at a smaller initial outlay and subsequent cost than with any other flowering plant that can be said to have any serious claims upon us. The time and manner of sowing varies considerably, the simplest method being to sow the seeds directly into the borders where the plants are to flower. Nothing can be brought against this system, provided the soil was thoroughly prepared by mechanical working and generous manuring beforehand. It may be that the soil was worked in trenches

THE MORNING GLORY (IPOMÆA RUBRO-CÆRULEA).



beautiful exhibition flowers that one can grow and show. May not some of this increasing popularity be ascribed to the good influences of the National Sweet Pea Society? Whatever the cause, the result is a matter for gratification, and the greater the vogue that is attained by Sweet Peas, the better it will certainly be for our gardens.

Sweet Peas differ from all other flowers in several material points, but in none more than in the effect of evolution. With the development of most flowers on the lines laid down by the florists we have seen the loss of some feature that had previously been regarded as essential. For example, many of our modern

for rows of plants or in stations for clumps, either answering equally well if the plants have plenty of room for perfect development. At least 3 inches must be allowed from plant to plant, and if the cultivator can find it in his heart to thin to double that distance, so much the better for the flowers, and, naturally, the grower also.

During comparatively recent years, however, it has become very general to sow the seeds in boxes or pots under glass, and if it is purposed to exhibit at the National Society's exhibition in Vincent Square, on July 4, this practice is to be commended as it gives the grower almost absolute control over the plants from first to



SWEET PEA. "GLADYS UNWIN."

last. For purposes of sowing boxes about 9 inches in depth are preferable to those frequently used, as more space is available for the roots to travel uncramped. The compost should consist of three parts of fibrous loam, one part of decomposed leaf-mould, some coarse sand, and, if possible, an addition of finely-crushed charcoal, to which I find that the roots are extremely partial. The seeds should be placed 3 inches asunder and covered with an inch of fine soil made firm and level. Those who do not care for boxes in which to sow may use 6-inch pots with equally satisfactory results, allowing six or eight seeds to each pot. In the event of sowing being deferred until it is considered rather late, the seeds should be soaked for twenty-four hours before sowing in warm water.

It is imperative that the soil in the pots or boxes be kept reasonably moist, as the roots are sure to suffer if it once becomes dust dry. When the plants are 3 inches in height small twigs must be placed to them so as to preclude the possibility of a recumbent position, from which it is frequently a difficult matter to persuade the plants to grow. Keep them in the fullest light, and as closely to the glass as can be managed to ensure a stocky, sturdy growth. The best place for the pots or boxes at all stages is a cold frame, where plenty of fresh air can be given and there is no semblance of coddling.

During the time that the seeds are germinating and the young plants making progress the soil out of doors can be prepared for their reception. This is an important operation, as the success of the entire work may be said to depend upon it. Whether the row or clump system be adopted is wholly a point for individual decision, and though, generally speaking, the finest blooms come from plants in clumps, satisfactory results may be achieved either way. Take out a station or trench between 2 feet and 3 feet deep, place in the bottom a layer of cow manure and work back the soil, incorporating with it some good natural manure, with a light dressing of mineral superphosphate and sulphate of potash. Make the whole moderately firm before planting, but immediately after working leave it loose and rough.

The plants will be ready to go out as soon as the weather is favourable in April, and this work must be carefully done, so that few, if any, roots are broken in the process. Set at least 6 inches apart, and stake at once. Permanent stakes should be placed in position early. Coming to

VARIETIES

one feels embarrassed with the richness of the material at command. We have a wide range of colouring from which to select, and there are several excellent varieties in each shade. Let us commence with a few of the newer ones, and give pride of place to Henry Eckford, not on account of its name, but its superb colour,

which is rich orange-salmon; it is a grand Sweet Pea. Another for which I can see a glorious future is Gladys Unwin. It bears a close resemblance to the renowned Countess Spencer, in having the same exquisitely waved standard; the colour is the softest pink. The blooms are large, substantial, and commonly borne four on a strig. Some readers will be interested to know that Messrs. Watkins and Simpson are offering a prize of £5 5s. for six bunches of this variety at the National Sweet Pea Society's show in July. Countess Spencer must, of course, be included, notwithstanding its irritating habit of sporting, and to complete a trio of the same character choose John Ingman, which is a grand rose-crimson. As far as England was concerned, Scarlet Gem was something of a failure last season, but it flourished magnificently in Scotland, Mr. Malcolm of Duns producing many wonderful

colour superb bright pink. A general list will be given next week. HORACE J. WRIGHT.

FAMOUS PEAR TREES IN THE CHANNEL ISLES.

WE are indebted to Mr. H. C. Smith, Caledonia Nursery, Guernsey, for the photograph from which the accompanying illustration was made. Doyenné du Comice is admittedly the best of dessert Pears, just as Cox's Orange Pippin is the best Apple, so that a special interest attaches to the illustration and Mr. Smith's note. The latter is as follows: "The wall is 27 feet high, and last autumn, when the fruit was still on the trees, the effect was remarkably good; indeed, the wall was



DOYENNE DU COMICE PEAR ON AN OLD FARMHOUSE IN THE CALEDONIA NURSERY, GUERNSEY.

(The wall faces west. The trees, which are 27 feet high, are grafted on the Quince stock.)

flowers. If it is grown let the position be either well shaded or where shade can be readily afforded. For a deep coloured variety I regard King Edward VII. as easily the best. There are several fine blues in varying shades, among the most commendable being Romola Piazzani, Miss H. C. Philbrick, Flora Norton, and Mrs. George Higginson, jun. Striped varieties have not, and are not likely to attain, such widespread popularity as those of more decided hues, but two that are worthy of consideration and trial by those partial to these are Dora Breadmore and Unique, both of which are of excellent form and size and perfectly refined. I must not omit to mention Bolton's Pink, which I regard as one of the finest Sweet Peas in cultivation. Its glory lies in the standard whose form is perfect and

quite a picture. The trees were planted ten years ago last spring. Of course, they have borne good crops for several years, but the yield in 1904 was the best we have had from them. No doubt in years to come, if nothing happens to them, we shall have considerably heavier yields, for we have other Pear trees twice the age of these that still produce good crops. All are grafted on the Quince stock; they are still so full of vigour that we are justified in expecting many seasons' good produce. We have always found that a fruit tree remains healthy and productive so long as it can develop; when it has covered the space allotted to it it is apt to deteriorate. We think this is always the case unless the tree covers a very large space; then, of course, its size naturally helps it to remain vigorous."

GARDENING FOR BEGINNERS.

COMPOSTS FOR POTTING.—Loam, according to the gardener's idea, is the top 3 inches or 4 inches from a sheep run or cow pasture, to include the turf. It is best from a clay sub-soil, and should be placed turf downwards, with alternate layers of stable manure in the form of a ridge. In three or four months, or when the grass is dead, it will be ready for use. It can be chopped down and mixed with sand and any other substance required to meet the needs of the plants cultivated. This will grow all soft-wooded plants, fruit trees, and Strawberries in pots to the greatest perfection.

Draining plant pots.—Crocking pots, to use a garden term, is very necessary and important work, and in large establishments is very often entrusted to the youngest hand. Mistakes in draining pots often lead to unhealthy plants; the work should be carefully supervised by someone who knows how important it is. Where much potting is done the drainage materials are prepared by a boy in bad weather, and consist of broken pots varying in size from pieces several inches in diameter to small pieces the size of Hazel Nuts.

Depth of drainage.—This will vary according to the nature of the plants cultivated and the size of the pots. For very small pots half an inch will be sufficient, but for common plants for bedding out in the garden one crock over the hole will be sufficient, as this crock will facilitate the removal of the plant when turned out of the pot. For 5-inch pots 1 inch of drainage will be necessary, and other sizes in proportion. The crocks, when broken, are usually passed through sieves of several sizes, and are stored ready for use in boxes or barrels. One crock with the hollow or concave side downwards is placed in the bottom. On this is placed a layer of smaller pieces, and on top a layer of small bits.

Worms in pots.—A worm in a pot is something like the proverbial bull in a china shop, though the damage done may not show itself so soon. The worm likes to work among rich damp soil, and this appears to be the reason why it is so anxious to gain admittance to the pot. A careful arrangement of the drainage may frustrate his efforts to get inside. There are small wire drainage protectors to place in the bottom of the pot which can be purchased for the purpose; but the worm sometimes gains admission to the soil when young.

Water-logged plants.—This arises generally through deficient drainage, and the humble worm, by shifting the material inside the pot, is responsible for much of this, and the question arises how can he be kept out or forced to leave when he gets inside. When a plant is placed outside stand it either on a bed of coal ashes or over some impervious bottom, such as boards or tiles. A dose of lime water will generally drive the worms out of the pots to the surface, when they can be gathered up. The worm does not hide his light under a bushel—his work is soon noticed on the surface.

More notes about worms.—It is not every plant that thrives in lime water, and in such cases other means have to be adopted. The worm is a nervous, timid creature, and when a plant is found with suspicious little balls of loose earth on the top the worm is there, and may often be found by turning the plant out of the pot, by giving a smart tap on the potting bench in the act of turning it out. If the worm shows himself—which he generally does—he can be hastily grabbed. If he still hides he can be forced out by thrusting a fine wire through the soil.

Value of firm potting.—A loosely-potted plant is nearly always an unsatisfactory one. The growth is long-jointed and spindly, and the flowers are poor and deficient in colour. Not only hard-wooded plants, but all such plants as Chrysanthemums, Pelargoniums, Fuchsias, &c., should be potted firmly if flowers are wanted. This applies also to fruit trees in pots—Strawberries, Pines, and Melons.

Profitable Onion crop.—Prepare the land now by trenching and manuring—unless this has already been done—leave the surface rough and exposed. Sow the seeds in boxes, thinly, under glass. Cottagers, who have no glass, sow the seeds in boxes in the windows; the seeds will grow, and the plants be ready to plant out early in April. Set out in rows 10 inches apart and 6 inches apart in the rows; stir the soil between the rows often and the plants will grow fast.

Some good Potatoes.—For early use, Rivers' Royal Ashleaf, Duke of York, and Sutton's Ninetyfold—the last is a heavy cropper. Puritan is also a good Potato. For main crop, at present, there is nothing better than the Factor and Sutton's Discovery. Among older varieties, Windsor Castle still holds its own. The new varieties, of which Eldorado stands out prominently, might be left alone by sensible people for a time till better known; there are various stories flying about in some districts which require to be cleared up.

Propagating Potatoes.—There is no difficulty in propagating Potatoes under glass the same as we do Dahlias, Begonias, or any other plant, tuberous or otherwise, but is it wise to do so? My impression is that it is not. I have often, when dealing with new sorts, cut them into single eyes, started them in pots, and planted out when ready. And that is as far as I intend to go in for these. Forcing and continual sub-division if persisted in must weaken the constitution of the progeny.

Brussels Sprouts.—These are still one of the best winter greens for everybody to grow. They may be had as good in the allotment as in the large garden. They require plenty of room and a long season of growth. A first sowing should be made under glass early in February, hardened off, and pricked out in the nursery bed 6 inches apart, and in May set out in rows 3 feet apart on good well-worked land. A further sowing should be made outside the first week in April.

Making a hot bed.—Root warmth is very helpful to early crops. The most primitive kind of hot-bed is a trench filled with warm manure, over which a frame is placed. This kind of hot-bed is used sometimes in cottage gardens for raising young plants such as Cauliflowers, Leeks, Celery, Brussels Sprouts, and, later on, Vegetable Marrows and Ridge Cucumbers. Larger hot-beds are made above ground, and properly glazed frames are placed thereon.

Renovating a neglected garden.—Unfortunately, these are not uncommon in the country. Fruit trees run wild and are covered with moss and lichen, borders are overgrown by weeds everywhere. Neglected fruit trees should be treated cautiously. All branches which cross each other should be cut out and long spurs thinned and reduced, but spread the work, if much is required, over two or three years, always bearing in mind that the prime factors of fertility are air and sunshine, but reckless pruning of a crowded tree lets in the wind and chills the growth.

Lime in the garden.—This is a cleansing agent of great value, and may be used freely over neglected fruit trees and gardens generally, using it on the trees when the latter are damp. Weeds should be trenched in, Box and other edgings replanted, walks turned over, and a little fresh gravel added. In this way a neglected garden may be got into a presentable condition, though it will be several years before all is right again.

Troublesome birds.—If there is any trouble with bullfinches or other bud-eating birds, dust the bushes when damp with a mixture of soot and lime. This will not only keep off the birds, but it will cleanse the bark and give an impetus to the circulation of the sap.

Sow early Peas and Long-pod Beans on the warm border. William Hurst is a hardy dwarf variety, and is early. Gradus is better, but not quite so early. Keep off the land when wet. Draw

drills 18 inches apart for the very dwarf Peas, and 3 feet for Gradus. Cover the Peas 2 inches deep for the earliest crop; later Peas may have more covering. Dust the seeds with red lead if there are mice in the garden.

The spraying of fruit trees to check insects will in the future receive more attention. There are numberless insecticides on the market, but there is still room for something cheap and effective. Winter dressings are useful.

The best foliage plants for rooms are Kentias, Palms, Aspidistras, Aralias, and India Rubbers; and useful flowering plants are Chinese Primulas, Cyclamens, tuberous Begonias, Cyrtanthes, zonal Geraniums, and various bulbs. Be careful with the watering pot. If a plant requires water enough should be given to moisten all the soil, and then leave it till it is dry again. Much good may be done with the sprayer and soapy water now.

E. H.

BEST CLIMBING ROSES FOR SMALL GREENHOUSES.

WHERE the house is quite small one does not care to give up all the roof or wall space to Roses, and this is what generally happens if the usual climbers, such as Maréchal Niel, climbing Niphetos, &c., are planted. Far more satisfactory results are obtained by using the less vigorous Tea and Hybrid Tea Roses. It is no uncommon thing to find a 7 feet to 8 feet wall covered with the ordinary Niphetos, Perle des Jardins, Papa Gontier, Mme. Lambard, and others, and apart from their less rampant growth they are practically ever blooming. It is essential that a beginning should be made with sound, well-ripened plants, and none are better for the purpose than those known as extra sized pot plants. These may be obtained with shoots ranging from 1 foot 6 inches to 2 feet 6 inches long. The greatest success is achieved when a good border or large hole is prepared for each plant, or if it be desired to grow the plants on the front staging and lead the growths below the roof then a large pot or tub may be prepared for the plant. A small brick pit is sometimes built in one corner. This may be made any convenient height, and the brickwork hidden from view by suitable plants. Whether border, pot, or tub be used the soil should be of the best, and plenty of it—turfy loam three parts, well-decayed manure one part, a little leaf-soil, and half-inch bones at the rate of a 6-inch potful to a barrowful of compost would be a suitable mixture for Tea Roses. Drainage should be ample, as upon this being efficient success or failure mainly depends. There should be at least 6 inches or 8 inches of broken pots, bricks, stones, or other similar material in the bottom of the border or large pots, and upon this some turfy loam, grass side downwards. Fill up holes or border with the compost, providing a depth of this to about 2 feet. When the plants arrive soak the earth thoroughly, then allow it to drain for a short time, and afterwards plant. The ball of earth should be slightly pricked on the outside with a pointed stick in order to release the fine roots, when they quickly lay hold of the new soil. The soil must be pressed firmly about the roots. Little or no pruning will be needed, at least in the first season, but growths should be well spread out. Twelve splendid varieties would be Niphetos, Perle des Jardins, Papa Gontier, Bridesmaid, Pharisae, Liberty, Lady Roberts, Mme. Hoste, Mme. Lambard, The Bride, Maman Cochet, and Souv. de Pierre Notting.

TWELVE ROSES FOR BEGINNERS.

FRAU KARL DRUSCHKE, Caroline Testout, Ulrich Brunner, Mme. Abel Chateau, Mrs. John Laing, Charles Lefebvre, Gloire de Dijon, Mme. Ravary, Climbing Mrs. W. J. Grant, Marie van Houtte, La France, and Grüss an Teplitz.

P.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A VALUABLE EARLY FLOWERING CAMPANULA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The Campanula, more generally known as *C. muralis bavarica*, on which an appreciative note, by Mr. J. Cornhill, appeared on page 407, is without doubt one of the most valuable of the family for general use. It is a native of Southern Europe, and is one of the easiest Campanulas of the whole race to grow satisfactorily in this country. In whatever site it is planted it seems determined to utilise its energies in becoming an attractive feature, and whether growing on the top of a wall, in a pocket of the rock garden, along a rough stone edging, or in a rock crevice, its profusion of lavender-purple flowers always fascinate the eye. It is generally at its best in the late spring, and in my garden made a pretty picture associated with a large clump of *Saxifraga pyramidalis*, two dozen or more of whose white, branching flower-spikes rose immediately behind the purple-blue cloud formed by the Campanula's blossoms. In the south-west this Bellflower is additionally valuable on account of its winter blooming, and it was in fine flower with me on Christmas Day. In the number of blossoms produced at that season it cannot, of course, compare with its display at its earlier flowering period, but flowers of the open air are distinctly precious in midwinter, and are ever greeted with unalloyed delight.

S. W. FITZHERBERT.

A CHRYSANTHEMUM NOTE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—A short account of the three specimen plants that won the National Chrysanthemum Society's silver medal at Torquay on November 3 may be of



CHRYSANTHEMUM MRS. T. W. POCKETT.
(Japanese type. This plant had fifty blooms.)

interest to some of your readers. I enclose photographs of them. No. 1, Mrs. T. W. Pockett, a Japanese Chrysanthemum, deep canary yellow. The plant was 4 feet high, and had fifty expanded blooms. No. 2, President Nonin, Japanese

incurred, colour chamois yellow. The plant was 3 feet 6 inches high, and had forty-five expanded blooms. No. 3, Souvenir de Petite Amie, Japanese, colour pure ivory white. This is a dwarf bushy variety. The plant was 3 feet in height, and carried forty-five splendid blooms. All these plants were shown in 10-inch pots. The plants were exceptionally good, with fine healthy foliage. They were grown by Mr. Gitsham, gardener to Captain J. F. Tottenham, R.N.

E. LLOYD EDWARDS.

[We are pleased to illustrate the varieties Mrs. T. W. Pockett and President Nonin, but the photograph of the beautiful Souvenir de Petite Amie was not sufficiently distinct for reproduction.—Ed.]

NEW APPLE PARENTAGE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am indebted to Mr. Page for reminding me of the name of an Apple I have just recently been trying to recall to mind, Roundway Magnum Bonum. This variety is undoubtedly too large for ordinary dessert, although it is delicious when nicely baked, but it has the merit of being much the best-flavoured large Apple in cultivation. It is this variety I would suggest to any who may wish to embark further in the experiment of raising new, rich-flavoured dessert varieties, that they should employ both as seed and pollen parent in conjunction with Cox's Orange Pippin and others of high quality. A grave mistake was made when so worthless a variety, so far as quality is concerned, as Peasgood's Nonsuch, was employed as either parent, even with Cox's Orange Pippin, for it has proved to be so largely dominant that whilst producing a pretty progeny, these have entirely lacked flavour. There is still so much room in dessert Apples for good free-cropping, high-flavoured varieties.

A. D.

HARDINESS OF ROMNEYA COULTERI AND OSTROWSKIA MAGNIFICA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was very much interested in Mr. Fitzherbert's note on these fine plants, with which I generally agree, although I fear it brings us little nearer a diagnosis of the cause of their failure in so many gardens. From the accumulated evidence of many it would, I feel confident, be now impossible to assert that *Romneya Coulteri* is not hardy, although there are many places where it suffers much from spring frosts, and there requires some protection to prevent injury to the young growths. It is, however, frequently difficult to establish, and plants die off in a quite incomprehensible manner, while others beside them live and eventually flourish. This points to the desirability of planting more than one specimen. I have come across it in a good many gardens where it is perfectly hardy, and where the plants have assumed rather imposing dimensions. In some places it is found necessary for protection to allow the old stems to remain until spring to give some protection to the new growths at a critical period in their season's growth. No one who has seen a good plant of this noble Poppywort will be willing to be long without it in their garden. There is, however, more difficulty with *Ostrowskia magnifica*, which has beaten most of us in the North in our attempts to cultivate it successfully; while some I know who have flowered it have been disappointed with its flowers, through their being, with them, flimsy and without substance. With others again it is very fine, and quite a striking plant. I have, for the present only, given up trying it, but I should like to make another attempt when opportunity offers. What many have found is that it starts into growth too early for our winters, and suffers much from late frosts. If left unprotected it is cut badly, and fails to flower or even to grow to any height. On the other hand, if covered with a handlight, it becomes too much weakened by being drawn and forced by the protection of the glass that it does not flower even then. It is thus impossible to account it a satisfactory plant in many places]

With me it dwindled away and proved a failure. I know some other gardens where it was given every possible attention, and was tried in various ways without any return for all the trouble it received. I hear, however, of some recruits to the



CHRYSANTHEMUM PRESIDENT NONIN.
(A type of the Japanese incurred bloom.)

ranks of hardy flower growers who are very hopeful of success even in districts where the *Ostrowskia* has hitherto been a sad failure and a source of vexation. One can only hope that others may succeed where one has hitherto failed. The difficulty of early growth is one not easy to meet in many districts where wet or mild autumns and winters are the rule. If one could only apply the retarding treatment, now so general for plants for the house, to this *Ostrowskia* we might hope for more success. It might be helpful were some one who has the opportunity to try the retarding treatment, and then to plant out the *Ostrowskia* in, say, March, or preferably, April. It is possible, too, that the *Ostrowskia* might do better in a shaded position than in a sunny one. The latter hastens growth, and it is also against the colour and long duration of the flowers of the *Ostrowskia*.

Cursethorn, by Dumfries, N.B. S. ARNOTT.

WAYS OF SHOWING CHRYSANTHEMUMS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Most owners of gardens will cordially welcome the opening of the discussion for and against the single-stemmed Chrysanthemums as grown for exhibition, inaugurated by "A Reader" in the first issue of THE GARDEN in its new form. From the cultured amateur's point of view, such artificial plants with one huge bloom may be curiously wonderful, but are bereft of all beauty. The professional view would probably differ, for there undoubtedly is a certain fascination in being able to produce big things of all kinds as a result of pure skill. Therefore, until this mode of cultivation shall be discountenanced and pronounced contrary to the canons of good taste, and prizes cease to be offered at the shows for them, the temptation to grow Chrysanthemums after this pattern will prove too strong for gardeners to resist; nor can we expect it to be otherwise while employers, with their usual indulgence, go on permitting the enormity. Of course it is weak, but when one's gardener has expended untold car

and thought and affection in producing what we ourselves may regard as a monstrosity, it is a little ungracious to tell him that his greatest efforts have been nothing but love's labour lost. A way out of the difficulty is often found in altogether forbidding plants to be grown for exhibition; but this again is rather hard, and cuts off a pleasurable incentive to work which is often of great benefit. All owners of gardens, where Chrysanthemums are grown in any quantity, will therefore be greatly helped by the better education of public taste on this point. Some amateurs are even now to be found who have a sneaking admiration for floral mop-sticks, and who like their gardeners to win first prizes by producing them. We can but hope that better taste will soon become universal.

ANOTHER READER.

BAMBOOS IN THE OUTDOOR GARDEN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. J. Roberts's contribution in last week's issue of *THE GARDEN* doubtless interested many. My experience would include in the list of desirable hardy Bamboos *Phyllostachys nigra* and *Arundinaria nitida*. Both stand the winter here well. My Bamboos are growing—some of the canes are 15 feet high—in a rather sheltered border (not a glen), and not one of mine has flowered. One under glass, *A. Simoni* has flowered in a small pot, and is none the worse for it. The Himalayan Bamboo, *A. Falconeri* (I think it is) dies down at the first frost, but protected with Cocoanut fibre at the roots, it shoots forth in late spring and forms a pretty object. Some of the Bamboos, it must be admitted, are in early spring untidy objects, but their grace and beauty in summer and autumn, and of some species even in winter, make one forget and forgive this drawback.

Erleigh, Reading.

F. C.

THE BRITISH GARDENERS' ASSOCIATION.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Having been a firm believer in, and supporter of, the above ever since the present liberal and comprehensive scheme—which I have before now supported in your columns—was made public, it was with sincere pleasure that I read the able leaderette in your issue of the 7th inst. For many years it has been heard on all sides that gardeners ought to combine; but so far as I am aware it was not until the meeting held at the Hotel Windsor last February that any serious attempt had been made, or any workable scheme had been brought forward, which was likely to bring about this "consummation greatly to be desired." There have never been wanting croakers—those who have said that the gardener cannot combine—thus, I think, themselves showing a very poor spirit, and grossly libelling members of the gardening profession. The success or failure of the association has now for some time been in the balance; it must have taken a lot of determination and hard work on the part of the promoters of the British Gardeners' Association to carry matters to their present stage. What acquaintance I have with the affairs of the association makes me feel confident that having gone so far as it has it will go very much further, and will indeed successfully carry out its programme. Great credit is, I think, due to those who are doing the work—the members of the provisional committee and committee of selection—and credit is also due to those journals who have throughout expressed their belief in the possibilities of the scheme. I will conclude by reminding the many who are "going to join" that now is the time to do so, and that it is more than likely that in the future some distinction will be made between the first 500 original members and later comers.

E. A.

VIOLA CORNUTA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In his most interesting and informing article "Riviera Notes," in *THE GARDEN* of the 7th inst., Mr. Edward H. Woodall draws attention to the

value and beauty of this plant for winter bedding on the Riviera, and suggests that it should be worth a trial in English gardens. It so happens that this simple sweet and pretty *Viola* is a very old friend of the British gardener. From twenty to thirty years ago there were few gardens unadorned by its presence in flower-beds in the spring and early summer. It was generally used to carpet beds planted with late bulbs, and most beautiful and effective it was for this purpose. Since then the *Viola* has been revolutionised by cross-hybridisation. One of the parents of the early hybrids was *Viola cornuta*. It is well that Mr. Woodall should have drawn attention to its rarity, as for the purpose he indicates, namely, as a carpeting for other plants, where the colour (a lavender-blue) is desired I know of no prettier setting. O. T. E.

THE FRUIT GARDEN.

SUMMER v. WINTER PRUNING OF FRUIT TREES.

IT is a common occurrence to notice each winter, and, indeed, well on towards spring, many fruit trees and bushes where no attempt has been made to prune them. This, of course, is more general in medium-sized gardens and orchards, and not where the garden is well supervised. To say the least trees and bushes, with their long bare shoots, many of them quite unripened at the ends and still retaining half-formed leaves, strike the gardener as evidence of sheer neglect. Such important work in fruit culture should not be delayed; indeed, the need should in many instances not have been allowed to arise. Why do so many who have the advantage of a collection of trees think that there is only one season for a general pruning, i.e., winter, and that it can be done at any time before growth begins again?

A certain amount of pruning must be done necessarily during winter, but in the case with most trees and bushes it might be reduced to a minimum, a system making it easier for the workman, and certainly for the well doing and fruitfulness of the trees. How few amateurs, farmers, and cottagers realise the great advantage of summer pruning? Those, of course, who have not considered the object of pruning, and when it should be done, work, so to speak, in the dark, and should a fair crop be obtained they can take little credit to themselves. This is trusting to Nature, which, with fruit culture in this country, is not always to be relied upon. Summer pruning of most fruit trees has much to recommend it, especially with Apples and Pears, also Peaches and Nectarines on outside walls.

When to begin pruning in summer may be the stumbling-block with some, as there is a danger of too soon a start, thus causing a wholesale growth of young shoots, which would not ripen, but would rob the other shoots on which they appear of much nourishment. It should be remembered that a safe season to commence to shorten back the current season's wood is when it has practically finished its growth, viz., the end of July or beginning of August, according to the season; by that time the base of the shoots will have begun to harden—a good rule to go by. The advantages gained by summer pruning are threefold or more. First, the cutting back and removal of so much superfluous growth proves a relief to the trees, and the whole of the sap, which rises afterwards, is concentrated in the portion retained, and tends greatly to the full and better development of both wood and flower-buds. Secondly, the wood receiving more sun and air stands a much better chance of becoming more thoroughly matured—no small advantage towards securing a good crop of fruit the following season. And, thirdly, the same conditions are all that can be desired for the fruit, assisting it to swell to its fullest size, and certainly bringing out the colour peculiar to each variety. Those who have not really studied the subject will admit that sufficient advantages have been advanced to show that summer pruning is really necessary, resulting, when

properly done, in that of winter being only of secondary importance, instead, as many wrongly consider, the one and only season.

No more interesting work can be followed in the garden than pruning in different ways and seasons, and then, by carefully noting the results, much valuable knowledge is gained. Young gardeners in particular should make a careful study in this most important work, which will stand them in good stead in years to come. The right growths to cut out and to retain are not always selected; but in forming the foundation of young trees in particular this is all important, and one should carry in their mind's eye the shape of each specimen, and thus reflect credit on their own handiwork when the trees come into full bearing. Referring to winter pruning, that which requires doing should be done at once, and the thoughts then will probably occur, Why cut away all this wood? And for what reason was it retained? If such thoughts were earnestly considered and acted upon, and the system altered, better results would undoubtedly follow. With regard to trees that were summer pruned, these, too, will require going over, and here and there a further shortening of a few inches may be necessary, cutting always to an outside bud, which eventually will prevent the centres of the trees becoming crowded later on.

There is one exception, perhaps, we ought to make, and that is in the case of such fruits as Gooseberries and Cherries. Each of these are in some seasons seriously robbed by birds of many of the flower-buds, and it is wise then not to prune until spring is at hand. This gives the grower a better selection of shoots to preserve, when there will also be other food to tempt the birds.

RICHARD PARKER.

THE KITCHEN GARDEN.

LESSONS FROM 1904.

(Continued from page 31.)

VARIETIES TO CHOOSE FOR 1905.—BORECOLES AND KALES.

ALL kinds of these are splendid, and when a good selection is made they form a very pleasing and attractive feature in the kitchen garden. A good strain of Scotch Curled can hardly be beaten for hardness and general use. Two of the most desirable varieties I know are Carter's Welsh and Carter's Purple Plume. Both are perfectly distinct, attractive, and of good quality. Sutton's Drumhead is also a fine, profitable Kale, and quite distinct. The old Cottager's Kale is still much appreciated, and is a very prolific sort of fine quality. The Labrador Kale is distinct and valuable, very hardy, and remains a long time fit for use in spring. I know of none so refined in flavour. Unfortunately, it is difficult to get this true to name. Broccoli has seldom, if ever, promised better, and if precautions in the colder districts have been taken to layer it, which owing to its late growth is necessary, an uninterrupted supply should be assured till next June. Sutton's Michaelmas White and Sutton's Christmas White are both valuable, and very nearly allied to Cauliflowers in appearance and flavour. A true strain of Snow's Winter White should, if possible, be grown in every collection. Leamington is another old and reliable sort, and if followed by Veitch's Model (a magnificent sort) and Late Queen one should be well supplied for the season.

CABBAGES

all through have been everything one could wish. If I were confined to one variety only I should vote for Ellam's Early, a grand introduction of the best quality, that seldom bolts. Sutton's Flower of Spring is a larger sort, but very fine. Rosette Colewort should be grown in every garden for autumn and winter use. Among red or pickling sorts Dobbie's New Dwarf Red Gem is the best I know, being of dwarf medium size and grand colour.

SAVOYS.

Like all the varieties of the Brassica family, Savoys are good and plentiful this winter. There

is at the present time a large selection of splendid varieties to choose from, but for general use the medium-sized types are much to be preferred to the large coarse sorts. Sutton's Perfection is also much liked here. It has all the characteristics of a good Savoy, and for very late supplies Webb's new Latest of All is unsurpassed. It is very hardy.

CAULIFLOWERS.

I do not remember a better season for these, and we certainly never had such a wealth of high-class specimens as last year. Thanks to the large number of fine varieties introduced by the various seedsmen, there is no difficulty in keeping up a continuous supply all through the spring, summer, and autumn if frequent sowings are made. Veitch's Extra Early Forcing, Carter's Defiance, and Sutton's Magnum Bonum are excellent for pots, frames, or orchard houses. These produce small pearly-white heads, so much liked for the table, and force gently with the greatest ease. Following these, the old Walcheren can hardly be beaten, but the mainstay for general use is that grand variety, Veitch's Autumn Giant, one of the finest vegetables ever produced. There are several distinct types selected from it which are worthy of cultivation, notably Sutton's Early Giant. I regard this as the finest for exhibition, and excellent in every way. Carter's Extra Early Giant I like much; it should be grown by all exhibitors. It seldom fails to produce magnificent pure white heads.

CELERY.

In some districts the Celery fly has been very prevalent, and in one or two instances the crop has been practically spoilt, but on the whole it is good, and we certainly never had finer. Among white varieties Sutton's Solid White, Carter's Solid Ivory, and Wright's Giant have all been good. Standard Bearer is still the best red I know. Webb's Mammoth Red is fine for exhibition. The new Pink raised by myself I will leave cultivators to form an opinion of after it has been sent out.

LEEKS.

No vegetables require more skill and patience to produce than Leeks, and our Scotch friends certainly take the lead in this respect. Nevertheless, I am thoroughly convinced it is possible to grow them equally well in the south, providing, of course, we are prepared to go to the same amount of trouble and the best strains are procured. But what constitutes a good Leek has never, in my opinion, been properly decided. I am not in favour of a blanch of, say, 2 feet, unless size is in proportion. Eighteen inches of blanch of good size and perfect form in every way is, I think, the standard to aim at. The slightest sign of bulbing or running to seed condemns them at once, and each specimen in a dish should be as much alike as possible. I have seen better Leeks in previous years than last.

Elstree.

E. BECKETT.

(To be continued.)

ORCHIDS.

CATTLEYA BOWRINGIANA LILACINA.

THE petals and sepals of this Orchid have a peculiar bluish shade which is more pronounced on the front portion of the labellum, making it very noticeable, and its effect when staged with the ordinary variety is very pleasing. The normal forms of *Cattleya bowringiana* are well worth growing; they flower during the early winter months in large clusters, which makes them very desirable, and single flowers are extremely useful for button-holes. Previous to the reintroduction of the autumn-flowering *Cattleya labiata* by Messrs. Sander and Sons, *C. bowringiana* was the chief *Cattleya* flower during October and November, and although we now have many that flower

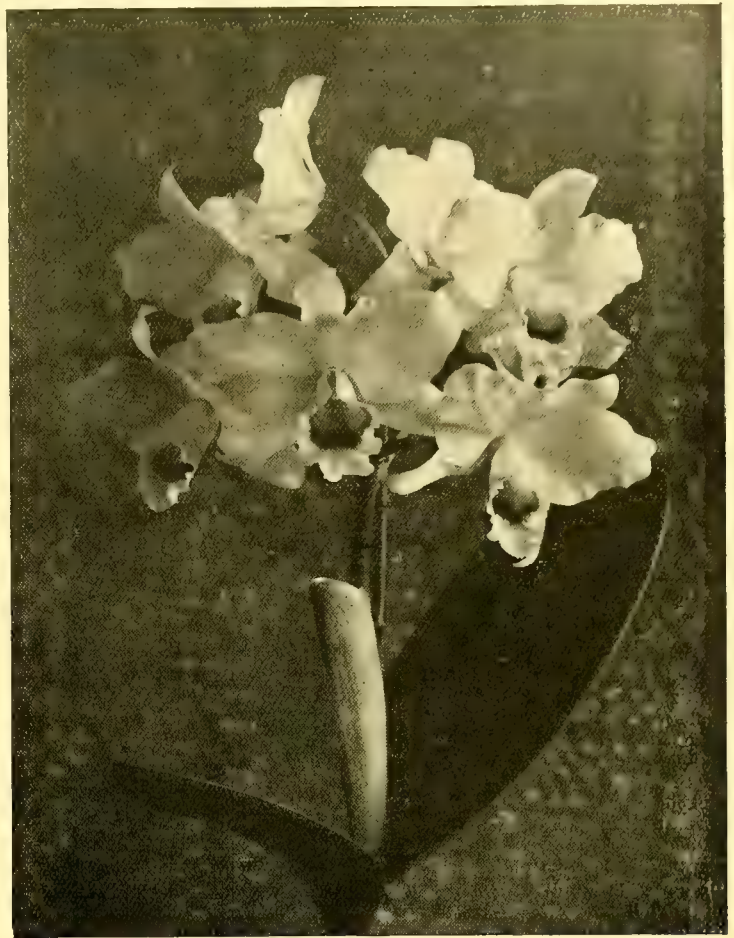
at that season this one is still worth its room in the best collections. It has also proved itself one of the best parents for hybridising. Among those in which it has been used are the beautiful forms of *C. Mantini*, in which *C. aurea* was the other parent; *C. Portia*, obtained from this, and *C. labiata* and *C. wendlandiana* when *C. gigas* was used. Many others, in fact most of the early winter-flowering hybrids now so often seen, have been obtained from this species. They are generally good growers, and flower freely. They have added much to the beauty of our houses during the dull season.

W. P. BOUND.
*Gatton Park Gardens,
Reigate.*

ORCHID GROWING FOR BEGINNERS.

THE HOUSES. — It is necessary to provide suitable accommodation for the Orchids before purchasing them. The question of the house or houses is a most important detail; a duffer can grow them better in a good structure than a good grower can in a bad one. A good house does not necessarily mean an expensive one. I have seen costly houses erected that will never prove good ones. The first consideration should be position, and the best would be where unrestricted light can reach the plants when it is wanted. If the houses are to run side by side keep them far enough apart to allow of a free circulation of air between. The house I would give preference to is a span roof that runs north and south. The brickwork should be 3 feet 6 inches high, in which are fitted ventilators, the upright side glass, standing 2 feet 9 inches, would give a total light to the spouting of 6 feet 5 inches from the ground level, the centre of the house, not including the lantern, being 9 feet would give a good pitch for all classes of Orchids. I strongly favour a lantern ventilator to the roof, about 12 inches higher than the latter. The matter of length will be best decided by the position, but I strongly condemn long houses. A good length is about 30 feet, but much expense will be saved if the houses can follow one another, dividing each with a glass partition. A very convenient width for this style of house is 11 feet, inside measurement, that allows for two 4 feet stages and 3 feet for the path. All the bars should be of the drip conductor type, and placed to allow of glass squares, 13 inches wide, being used. These give plenty of light and ensure a strong structure. It is advisable to have the side lights so made that all may be opened. In many houses it is not necessary to open them, but as the cost is very little more when the house is being built, it well repays being done, and as at some future time the house may be wanted for Orchids requiring side ventilation, then the conversion would cost far more.

VENTILATING. — I prefer the top ventilator to be a continuous lantern one; during bad weather by putting on the slightest crack the whole of the



A BLUE-LIPPED ORCHID (*CATTLEYA BOWRINGIANA LILACINA*).
(In the Orchid collection of Mr. Jeremiah Colman, Gatton Park, Reigate).

foul air which congregates at the apex of the roof escapes quickly. The most important ventilators are those fitted in the brickwork under the stage; they may be made in wood, but the best are those made of iron. If they are not all iron, at least they should have iron frames, and the centre be filled with Artley's roll glass. If it is desired they can be fitted with gear so that they can be worked all at once from the inside, they should be just on a level with the hot-water pipes, so that the air is warmed before it passes further into the house, then ventilation is possible during the worst days of winter, and plants require fresh air then as much as they do on more genial days. Many structures that have been erected with other objects in view may often be made suitable for growing Orchids successfully. In houses erected for other plants the chief drawback generally is the absence of bottom ventilators, although this is easily put right.

W. P. BOUND.

WORK FOR THE WEEK.

CYPRIPEDIUMS. — Plants of *Cypripedium Charlesworthii*, *C. spicerianum*, *C. arthurianum*, *C. purpuratum*, *C. Euryades*, *C. Tityus*, *C. Niobe*, *C. aureum*, and *C. Sallierii* hyeanum which have recently ceased flowering may now be repotted into larger pots, healthy plants being shifted into pots two sizes larger. Similar compost to that advised in the last calendar for *C. insigne* is the most suitable for them. *C. leeanum* and its numerous varieties are quite as useful as the old *C. insigne*. Coming into bloom at this season they are particularly welcome for brightening up the Orchid house, and they deserve to be grown in quantity. Any plants of this beautiful hybrid that require repotting may be attended to soon after the flowers are cut. All of the above-named

Cypripediums will grow freely in a shady part of the intermediate house. When grown in a very light position the plants frequently lose more leaves than is desirable. The atmosphere surrounding these Cypripediums should be kept well charged with moisture at all times, and afford the plants plenty of water at the roots the whole year round. Plants of *C. Boxallii* and *C. villosum* are now sending up their flowers, which will require guiding through the thick foliage or they may become distorted. In tying up the flowers of plants which have the leaves crowded together care must be taken that the sticks do not injure the young growths. Now flowering in an intermediate temperature is the pretty

SOPHRONITIS VIOLACEA, a beautiful object when smothered with its small violet-magenta flowers. It appears to thrive best when fastened upon a bare block of Apple wood with the bark taken off, and suspended in a cool, shady part of the house. The block should be kept moist at all times. *Sophronitis grandiflora* is now flowering freely in the cool house; its glowing scarlet flowers produce a brilliant effect near the roof, and especially when over such flowers as *Odontoglossum crispum*. Plants of this species while in flower will still require a moderate quantity of water at the root, but care should be taken not to sprinkle the flowers or they may decay prematurely. After the flowers fade the plants may be afforded fresh rooting material if it is found necessary to do so. Shallow pans are preferable to pots. These pans should be well drained, using well-dried Fern rhizomes instead of the ordinary crocks. The compost should consist of fibrous peat, leaf-soil, and chopped sphagnum moss in about equal parts. Only a very thin layer of the compost is necessary for the plant to root into, surfacing this with clean picked moss. In this mixture the plants should never be thoroughly soaked or the roots will be liable to decay. After being repotted suspend the plants near the roof glass of the cool house. The distinct *Sophronitis rossiteriana*, a form with clear yellow flowers, is also now in bloom. It requires similar treatment to the preceding species.

ODONTOGLOSSUM CERSTEDII is another dwarf-growing species, which requires the same kind of treatment as advised for *Sophronitis grandiflora*. Well-bloomed plants of this pretty white species form a lovely contrast to the bright scarlet of the *Sophronitis*. These dwarf-growing Orchids are well worth any extra attention that can be paid to them.

Burford, Dorking.

W. H. WHITE.

GARDENING OF THE WEEK.

FLOWER GARDEN.

HARDY EDGINGS make a good finish to beds and borders of flowering plants near walks or the house, and form a desirable change to *Pyrethrum aureum*, so generally used for the purpose. Existing edgings that have become ragged or overgrown their allotted space should now be attended to by lifting the whole, digging, levelling, and treading down the line to be replanted. Among numbers of suitable plants for the purpose I may mention *Saxifraga hypnoides*, *Sedum glaucum*, *Herniaria glabra*, *Phlox setacea*, *Cerastium*, *Thrift*, *Arabis*, &c., as sorts that can be dibbled in as small rootless tufts quickly forming an effective and permanent edging, but most should be divided and replanted every alternate year. *Santolina incana*, although not quite hardy in some districts, is nevertheless a splendid edging plant, and bears clipping well; its grey colour is pleasing and restful to the eye, and gives little trouble. Cuttings—last year's ripened growths—laid in thickly now where they are to remain will turn out equally as satisfactory as those inserted in beds in the autumn, thereby saving labour of an extra planting. Narrow and uniform edgings of this kind are not in keeping with bold arrangements in large and distant beds, a broad, irregular band of taller and more striking plants being preferable.

Although seldom used, *Sedum spectabile* is pre-eminently adapted for such positions.

THE ROCK GARDEN.—Cut off all dead tops, weed and fork the ground now the later bulbs are visibly pushing through, top-dressing those whose roots have become exposed through the action of heavy rains or waterings, filling up all hollows, clearing out vacant spaces and pockets (for probably the soil in these has become sour and inert), and refill with such soil as will suit whatever plants are intended to occupy them later. Finally, as some stones and boulders in moist situations have a tendency to become moss-covered, this must be cleaned off, and nothing is better for the work than a well-worn Birch broom. If the Moss is allowed to remain it will in time completely cover the rockery. On the other hand, encourage and protect the growth of lichens in every possible way, for they impart that soft grey colouring and appearance of age so pleasing in either artificial or natural rocks. Maintain lawns and walks in perfect condition, remedying all inequalities in grass verges, but delay edging-iron work until the season of sharp frosts is past.

DAHLIAS.—If it is intended to increase any varieties of these, the tubers should be placed in heat to produce cuttings, as should also a few *Phloxes* of clear decided colours, even if the general stock is deemed adequate and there is no necessity for increasing it in heat. These early spring-struck cuttings extend the flowering season into quite late autumn, so should be propagated thus for that purpose.

JOHN ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

HARDY AND HALF-HARDY ANNUALS.—With perhaps the single exception of *Mignonette*, these plants do not receive the attention they deserve for greenhouse decoration. They only require cool treatment, so the amateur with his one small greenhouse can grow them as well as the professional gardener with ranges of houses under his charge. By sowing now they can be had in flower six weeks or two months before those grown outside. The following is a selection of the most useful: *Rhodanthes*, *Acroclinium*, *Nemesia strumosa* Sutton, *Gypsophila elegans*, *Sweet Peas* (tall and *Cupid* varieties), *Godetias*, *Clarkias*, *Collinsia bicolor*, *Petunias*, *Schizanthus*, and *Coreopsis*. Sow the seeds in soil composed of two parts loam, one of leaf-soil, and a liberal sprinkling of sand. When repotting use rather more loam, and add a little manure from a spent hot-bed. The first four mentioned above and *Cupid Sweet Peas* should be sown thinly in the pots in which they are to flower, say, of 5 inches diameter. When putting soil in the pots leave sufficient room for top-dressing the seedlings when they are 3 inches or 4 inches high. Thin out when large enough to handle, leaving ten or twelve in a pot. Sow the tall varieties of *Sweet Peas* also in 5-inch pots, and pot on into 7-inch or 8-inch pots, in which they will flower. The remainder can be sown in pans and pricked off five or six into small pots. Another method is to sow in small pots and thin out afterwards. Pot on when well rooted into 5-inch or 6-inch pots. *Schizanthus* grown singly in 5-inch pots and pinched several times make useful plants.

HARD-WOODED PLANTS.—These need very careful attention at this season of the year. Ventilate as much as possible, avoiding draughts. Use no more fire-heat than is absolutely necessary. At the least sign of mildew dust the affected parts with sulphur. The plants should be placed on ashes or shingle. Avoid open stages, as on these watering is much more difficult; the soil is often found to be dry at the bottom of the pot, while on the surface it appears quite wet. Cut back *Erica hyemalis* and *Epacris* as they go out of flower, giving slightly warmer treatment.

GENERAL REMARKS.—Climbers may be pruned and cleaned about this date. Keep rather dry at the root. Where *Gardenias* are required, more especially for cutting, it will be best to root a batch of cuttings annually, as longer stalks and usually better growth are obtained from young plants. Cut back *Begonia Gloire de Lorraine* as

they become shabby, and rest for a short time before starting into growth to obtain cuttings. Introduce batches of forcing shrubs and bulbs into heat as required. Place a few plants, such as *Acacias* and *Eupatoriums*, in a warmer house to flower in advance of the general batch, as there will be a dearth of tall plants after the blaze of the *Chrysanthemums*.

Royal Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

QUEEN PINE APPLES.—Plants which are to fruit in the early summer months should be placed in the fruiting house at once. Thoroughly clean the house, and have the plunging material in a proper state to receive the plants. Select the strongest plants which are opening at the centre. These are most likely to throw up fruit. Before moving them they require to be staked to prevent twisting at the base. Remove some of the lower leaves and top-dress with fibrous loam and artificial manure. Thoroughly water the plants with tepid water. Endeavour at all times to keep a humid atmosphere by damping the paths and walls. A temperature of 70° at night will be suitable, except in very severe weather, when it may decline to 65°. Admit a little air on favourable occasions, but take full advantage of sunshine by shutting the house up at midday. Weak guano water occasionally syringed between the plants will be of benefit, and later on, when the roots are active, they may be fed liberally with liquid farmyard manure and guano water alternately. The *Smooth Cayenne* and *Rothschild* varieties, which give the autumn and winter supply, should not be excited into growth till the weather becomes more favourable. They must not, however, be allowed to get too dry at the root. If the roof glass has become dirty through fogs it should be washed, or the plants will become weak.

APRICOTS.—The Apricot being one of the first hardy fruit trees to flower, the necessary pruning and training should be done at once. Very little pruning will be required, provided the trees were properly attended to in the matter of stopping during the summer. At the same time neither spurs nor young wood should be crowded, as this tends to a general weakening of the tree and prevents the fruiting wood getting the necessary amount of light and air so essential to fertility. The finest fruits are obtained from the previous season's wood, so that in training space should be left for laying in sufficient young wood during the summer to furnish the tree the following season. A properly trained tree should have all its fruiting wood on the upper side of the main branches.

GOOSEBERRIES.—To obtain fruit of the best quality for dessert it is necessary to encourage young growth, so that in pruning a certain number of old branches must be removed to prevent overcrowding. Cut back side shoots to two buds, also leaders which are getting out of bounds. An occasional dusting of lime and soot will keep birds at bay.

RED AND WHITE CURRANTS should be spurred back to two or three buds, and if necessary cut back leading shoots to a few inches of their base, according to their strength.

BLACK CURRANTS should be thinned off as much old wood as possible consistent with the making of a well-formed bush, leaving in the young growths of the previous year. Guard against overcrowding, cutting away any very strong and misplaced shoots. Gather up the prunings and lightly fork up the quarters. Old plantations will greatly benefit by the application of a good dressing of rotten manure.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

WEEDS.—I think I hear some of your readers exclaim, "What about weeds in January? Surely we need not trouble ourselves about weeds in this cold and stormy weather." But if they will examine their winter vegetables it is more than likely that they will discover some thriving patches of Chickweed, or, it may be, a luxuriant plant of Groundsel,

both scattering their seeds in lavish profusion, ensuring a numerous and troublesome family by and by, when genial showers and milder days return. All such unprofitable members should be cleared from winter vegetables, Parsley, &c., during open weather.

EARLY CARROTS.—When young Carrots are required early in the season they can be obtained in perfection on mild hot-beds of leaves and manure. Making the hot-bed is very important, and in order to secure a lasting heat leaves from hard-wooded trees, such as the Oak and Beech, must be used, also fresh stable litter; three parts of leaves to one of litter. These materials must be properly turned over to sweeten before the bed is made up. A dry, sheltered, sunny position facing due south must be selected if possible. The size of the bed must be regulated by the frame to be used, leaving the sides of the bed to project a foot all round. Make the material fairly firm and 3 feet or 4 feet deep. The hot-bed will then be ready to receive the frame; the surface inside the latter must be covered 3 inches or 4 inches deep with sandy soil, and some wood ashes if they can be had. A pointed stick may be pushed into the centre of the hot-bed for the purpose of ascertaining its temperature. When the stick is withdrawn and feels comfortably warm in the hand the seeds may be sown broadcast, not too thickly, and then slightly covered. As a natural moisture will arise from the hot-bed no water will be required for some time; a little air must be left on the frame. To keep the temperature steady cover the frame at night with mats; during the day regulate according to the weather. Keep rather close until the Carrots germinate.

OTHER EARLY VEGETABLES AND SALAD.—On a bed of the above description many other early vegetables can be produced. This method is much better than that of sowing seeds in boxes, &c., and having them distributed here and there in forcing houses. Early Cauliflower plants raised on a hot-bed at this season are greatly superior to those sown in autumn, their growth being quicker and their tendency to button much reduced. An early sowing of Brussels Sprouts will succeed well on this bed, as will early Potatoes and Celery to be planted out later on. Turnips may also be sown on it; perhaps they may not attain a large size, but will always be acceptable for flavouring purposes. In a corner of the frame reserved for salads crisp and well-flavoured Lettuces and Radishes can be easily grown.

JAMES JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright, N.B.

A VISIT TO MESSRS. ALEX. DICKSON AND SONS.

(Continued from page 30.)

NEWTONARDS is easily reached by a railway journey of short duration from Belfast, and the Royal Irish Nurseries are close to its station.

After a hearty welcome no time was lost in proceeding to that portion of the extensive nurseries that is devoted to the seedling Roses, and here I must pause to thank the two members of the firm who devoted the whole of the day to showing me the result of their labours—their kindness I shall long remember.

Here were no haphazard methods, nothing left to chance, but every Rose had its history duly noted and indexed in such a manner that reference was made quite easy, and as this is done to thousands of Roses the clerical work alone can be no light matter. When to this are added the name, date, and time of crossing of its respective parents, the date of the sowing of the seed, the various results obtained from each pod of seed, always varying in character to an extent hardly to be credited by the uninitiated, the watching of the young seedlings, and the careful budding required, some idea

may be formed of the nature of the task Messrs. Dickson have set themselves, and an answer is forthcoming to that question why so few firms attempt the production of new Roses, and fewer succeed. There is no royal road to the production of new Roses, neither is there any secret as to the methods employed. Hard work, careful attention to detail, and a love of the Rose in the heart—these are the essentials. One often hears climate mentioned as the cause of Messrs. Dickson's unique success—I do not believe it for a moment—there is nothing peculiar about the Newtownards climate, except that there is, possibly, a heavier rainfall than in most localities where Roses are grown. No, given the same methods, the same desire and love for the work, I believe the result that would be obtained need not be very different in any Rose nursery in England, Scotland, Ireland, or Wales.

The first batch of seedlings we looked at were growing in rather poor soil that had not been heavily manured, and here on every side were flowers of all kinds, colours, and with varying habits of growth—Hybrid Perpetuals, Teas, Hybrid Teas, and Chinas, some marked for further trial, others definitely approved of, but the bulk destined for the bonfire; each is known by a number and the year of its birth. I refrain, for obvious reasons, from giving the parentage of the flowers that particularly struck me, and as few of them had arrived at the dignity of a name they could only be described by the help of reference to old Roses of similar character, such as an improved Souv. de S. A. Prince, a better Mme. Hoste, and so on. There were many, however, of these, and if no further Roses are produced sufficient were here to last, at the present rate of sending out, for many years to come; and no doubt many of these (before their time comes for distribution, even after a good stock has been raised) will be discarded at the last moment, not because they are not beautiful, but because something better has, in the meantime, been produced. I was pleased to see not a few fine-coloured crimson Hybrid Teas, of varying form, that will effectively take the place of some of the old Hybrid Perpetuals, the apparent neglect of which Mr. Mawley, in his comments on that most useful Rose analysis of his for 1903, so feelingly deplores. What matters it whether it is a Hybrid Perpetual or a Hybrid Tea? What does matter is, that while the one can only bear at the most two crops each of a few weeks' duration, the other will give us flowers for months, or as the Americans would say, "all the time."

Perhaps a few notes on the named varieties that will be shortly distributed will not be without interest to those of your readers who may not yet have seen these flowers. I take them in no specific order, but as they occur in my note-book.

Dean Hole.—An especial interest is attached to this Rose. Awarded the gold medal at the National Rose Society's Temple Show in July, a typical flower was conveyed to the late Dean Hole, who, ill though he then was, wrote a most characteristic letter of thanks to the raisers, which has appeared in the columns of a contemporary. In it he showed that his interest in his favourite flower was as keen as ever, and he was quite satisfied that the Rose should go down to posterity bearing his name. The loss that the Rose world has since sustained by his death is irreparable. There is no one that can quite fill his vacant place. Your columns and those of the entire Press throughout the English-speaking world bore eloquent witness of what the example of a good and great man can do.

Of the Rose itself, it is too early to say definitely that it is worthy of the name it

bears; but, judging from the plants I saw growing at Newtownards, and the flowers they were then bearing at a date when most of the shows were over (and the plants had been heavily cut from), I have no hesitation in saying it is a Rose of the greatest merit. It is distinct from either Maman Cochet or Mrs. Edward Mawley, and (surely it is no detriment to say it is reminiscent of both of these grand varieties) with a finer petal than either, and a far better habit of growth, in short of that general Dickson type I have already alluded to, with freedom of flower over a long period. It is being distributed this autumn (1904), and I have no doubt the demand for plants will far exceed the supply.

H. E. MOLYNEUX.

(To be continued.)

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

NAMES OF PLANTS.—F. W. E.—*Clethra arborea*, the Lily of the Valley Tree.—Miss O'Grady.—1, *Escallonia montevidensis*; 2, *Ilex Aquifolium ciliata*, a curious dwarf form of the common Holly. Like all Hollies the flowers are insignificant; 3, the Chinese Privet (*Ligustrum sinense*); 4, *Rhamnus Alaternus maculatus*.—P. G.—*Cypripedium nitens* (C. villosum × C. insigne) is the one with the spotted dorsal sepal; the one with dark pouch and striped dorsal sepal is C. Curtisii, a species from Sumatra; the *Odontoglossum* is *hunnellianum*, one of the parents of the popular hybrid named *Adrianæ*.—*Orcana*.—*Billbergia nutans*.

NAMES OF FRUIT.—Chesfield.—1, Cornish Aromatic; 2, Hall Door; 3, Pearson's Plate; 4, Cox's Orange Pippin.

PLANTING OUT SEEDLING IRISES (Staffordshire).—Early autumn is the best time, but if the seedlings are strong and can be lifted without unduly disturbing the roots they may be transplanted forthwith, taking care to make them very firm in the soil or frosts will uproot and ruin them. If they have grown strongly they should flower this season, and the weaklings next. I. tolmieana revels in turfy loam and peat; the others grow well in ordinary soil with sand added to the staple. It is quite in order that seedling Irises never seem to dry off. I. sindjarensis alone of those you name should rest naturally as soon as its bulb is formed.

YELLOW TUFTED PANSIES (H. Elliot).—There are now quite a large number of first-class bedding Violas, or, as we prefer to call them, Tufted Pansies. To discriminate fairly we have taken pains through the past season to compile a list of the better sorts, under their different colours, and this serves our purpose admirably on the present occasion. We recommend the following varieties for their all-round good quality. They each possess a good habit of growth, are free flowering, of a distinct shade of colour, and the plants also possess a good constitution. Mrs. E. A. Cade, rich yellow, rayless; Yellow Beauty, a fine yellow self, rayless; and Yellow Glory, a rayless yellow, a good bedder.

SCENTED LILACS.—"M. A. B." writes: "I would be very much obliged to you if you would be kind enough to tell me whether, among the new and double Lilacs, there are any sweet-scented ones."

Those which I have seen, *Souvenir de L. Spath* and *Mme. Casimir Perier*, are quite devoid of scent, and there are others in which it is extremely faint. I am thinking of planting a lot of Lilacs this spring, and would so much prefer to have only the sweet kinds, that a short list of these would be of great assistance to me, some which would represent the greatest range of colour. A scentless Lilac is to me only a "beautiful fraud." [We sent this letter to one who has a large collection of Lilacs, and the answer is to the effect that the high-bred varieties, especially the double ones, are on the whole less fragrant than those approaching the common Lilac. We hope to refer to this subject again when the Lilacs are in flower.—Ed.]

TREATMENT OF HYDRANGEAS (*H. G. Simpson*).—Few plants are better suited for early forcing than the common *Hydrangea* (*H. hortensis*), and the white variety *Thomas Hogg* is equally serviceable, and cannot be too highly recommended. We have had both in bloom early in February, and although the colour was not quite so good as in plants flowering when we get more daylight, they were very useful, especially as they were among the few subjects which did not suffer from the London fogs. For forcing, the plants should be propagated early in the summer. The soft young tops will strike freely in a close pit where there is a good bottom-heat. As soon as rooted they should be removed and gradually exposed. When sufficiently established they may be potted into 4½-inch pots, using good rich loamy soil. The plants should be grown in the open where they are fully exposed to the sun. Towards the autumn they should be kept rather dry to encourage them to ripen off early. If treated too liberally the plants will run up tall and will not set their bloom so well.

PROPAGATING DRACÆNAS (*S. T. Walls*).—Any stools of these that can be spared, such as leggy plants which are going shabby, should now be cut up for propagation. It should, however, be borne in mind that the most vigorous wood, and the healthiest also, makes the best material for starting afresh. When the wood is cut into short pieces, a joint is sufficient for a young plant; it should be soaked in tepid water, and then be plunged in cocoa-nut fibre upon bottom-heat. Growth will soon commence. Injury from cockroaches must be guarded against, as where these exist they seem fond of the young shoots, and will even eat them off under the surface. Plenty of moisture is, however, a good deterrent.

THE BEST ANTHURIUMS (*Edensor*).—Although not numerous at this season, the richly-coloured blossoms of a few *Anthuriums* form a showy mid-winter feature in the stove, their value in this respect being still further enhanced by the length of time they remain fresh and bright. The most noticeable of all just now is a vivid coloured form of *A. andreanum*, by no means of good habit. The various hybrids, in the production of which *A. andreanum* has played a part, also flower more or less in the winter, and their paler tints afford a pleasing variety to the richly-coloured flowers of *A. andreanum*. The first of these hybrids to which attention was particularly directed is *A. ferrierense*, raised between *A. andreanum* and the white-flowered *A. ornatum*. Since then a very large number of varieties have been put into commerce, but many of them greatly resemble each other. *A. ferrierense* has the flowers of a bright rosy carmine colour, while varieties with salmon-coloured spathes are also represented among these numerous hybrids. The stout leathery leaves of these hybrids of the *A. ferrierense* type render them very ornamental from a foliage point of view alone.

WINTERING CANNAS (*H. J. Jackson*).—Some of the newer race of *Cannas*, more particularly those with yellow blossoms dotted with red, do not produce very stout rhizomes, and if kept too dry during the winter they are very apt to perish. Within the last few years large quantities of *Cannas* have been distributed by our nurserymen during the winter months, as when dormant they can be readily sent through the post. On receipt they should be at once potted and placed under conditions favourable to growth, for if the

rhizomes are bruised or injured in any way they are very apt to decay if kept out of the soil, but when potted roots are quickly produced and decay is at once arrested. Those that are established in pots will keep well in a greenhouse and with the soil in a slightly moist condition. With a little additional heat, however, *Cannas* may be had in flower nearly all the year round.

THE BEST AUCUBA (*E. G. Williams*).—Notwithstanding the large number of new varieties introduced from time to time (not so much perhaps of late years as from fifteen to twenty years back), *Aucuba japonica*, more correctly perhaps termed *Aucuba japonica maculata*, still heads the list as a shrubby plant of the first rank. In some districts, it is true, it does not thrive so well as one could wish, but these occurrences are extremely rare so far as we have personally taken notes. As an undergrowth to tall deciduous trees we would not be without this *Aucuba* on any account. For such purposes we consider it one of the best shrubs that can be planted. When the tall deciduous trees have cast their foliage, that of the *Aucuba* shines forth at its best. Some may possibly have failed when planting for this particular purpose where it has not been an easy matter to get anything to thrive. As regards the *Aucuba*, we find it is best to select yearling plants for massing or planting in any quantity in unfavourable positions. By this we mean either cuttings that have been rooted for about twelve months or layers of the same stage.

RED AND WHITE DAISIES (*W. W. Southorn*).—For filling flower-beds cheaply *Daisies* should not be lost sight of. If you start with a few dozen you can soon make them into thousands if required, and, unless through carelessness, need never lose them. After they are lifted from the beds in May divide and plant out in nursery beds in a shady spot if possible and water for a time till established, and there will be plenty of stocky stuff to fill the beds in autumn. What soft lines of colour *Daisies* make if one really wishes for long, straight lines. We were kept waiting at a country station several hours last spring, and to while away the time we sauntered into the little village, and what a place for *Daisies* it was. Long lines of white and red *Daisies* led up to the cottage door in more than one garden, and very charming they looked. The red and white are most useful for filling beds or making edgings. The *Hen and Chickens Daisy* is less common and more expensive to purchase, and the variegated leaved forms are more difficult to manage. A small bed filled with white *Daisies* and a broad band of red *Daisies* round will have a neat effect. They always look fresh, no matter what the weather may be, and if mild, flowers may be gathered more or less all winter.

BORDER PLANTS (*Lancaster*).—We think the following plants will be suitable for the position, and we have studiously avoided any that incline to coarseness, or even the larger-growing things, which we consider out of place in a border of the width given. As some positions appear very dry we have marked by an asterisk a certain number of plants that will not object so much to this. Old *Crimson Pæony* and other *Pæonies* in select varieties of rose, flesh, white, cream, &c., **Kniphofia aloides* (Flame Flower), **K. a. glaucescens*, *Lilium tigrinum splendens*, *L. t. Fortunei*, *L. davuricum*, *L. Martagon dalmaticum*, *L. speciosum album*, *L. s. Krætzleri*, **L. candidum*, *Galtonia candicans*, **Alstroemeria aurantiaca*, **Iris ochroleuca*, **Ostrowskia magnifica*, *Montbretias* in variety, *Muscaria conicum*, and *Daffodils* in variety. The positions for these could in the present year be planted with annuals, inserting the bulbs in early autumn. *Lenten Roses*, *German Irises* in such varieties as *Gracchus*, *Dr. Bernice*, *Mrs. Darwin*, *pallida*, *Mme. Chereau*, *aurea*, *Queen of May*, *Thorbeck*, *Darius*, &c., with such *Irises* as *aurea*, *Monnier*, *Monspur*, **stylosa*, and **s. alba*, single and double *Pyrethrums* in great variety, *Gaillardias*, *Scabiosas*, *Megasea cordifolia purpurea*, the dwarf *Day Lilies* *flava*, *Dumortieri*, *middendorffiana*, &c., *Delphinium Belladonna*, and a select set of hybrid *Delphiniums*, *English* and *Spanish Irises*—it is now

too late to plant these bulbous kinds—*Heleniums* of sorts, *Heucheras*, *Japanese Anemones*, *Anemone sylvestris*, *A. s. plena*, *A. s. baicalense*, *Clove* and other *Carnations*, *Gladiolus Lemoinei*, *Achillea mongolica*, *A. The Pearl*, *Statice latifolia*, *Rudbeckia Newmanii*, *Galegas*, hybrid *Pentstemons*, and such things as *Anemone fulgens*, *Gentiana acaulis*, *Phlox frondosa*, *P. Nelsoni*, and others, *Saxifraga Wallacei*, *Antennaria*, and *Achillea aurea* near the front as marginal plants. What we suggest is a free grouping arrangement, where patches of *Montbretias* or *Lilies*, *Aster Amellus*, *A. Novibelgii densus*, *A. cordifolius*, *Trollius*, *Irises*, *Delphiniums*, and others would give sheaves of blossoms in their season, with *Daffodils* and other things springing from their base and flowering before the taller things had begun to grow. To make such a border really effective it would be necessary to make a rough sketch. Such a sketch, with the predominant colour of the plant noted, would diminish the possibilities of nearly allied things appearing in too close proximity. The above are all permanent perennials and quite hardy.

MAKING A SPAN FRAME (*G. W. E.*).—There is no need at all to have elaborate working drawings for making a wooden span frame for *Violets* or other things. If you want one of moderate dimensions make it 6 feet long by 4 feet wide, the sides and ends of 1 inch thick wood; the sides 10 inches deep, and the ends cut sloping, as shown in your drawing, to match the sides; the point or ridge of each end being 22 inches deep, or allowing a rise from the sides to the ridge of 12 inches; that would give ample fall for the glass-lights. A stout 2-inch beam should be let into the point or ridge of each end, thus, with the sides securely nailed, holding the frame together. To that ridge beam the lights, two on each side, each 3 feet long, should be hung by hinges, and at the front of each light should be some simple catch to fasten it to the side when down should high winds prevail. A bevelled piece of wood should be nailed within each corner of the frame to strengthen the joints. Make the frame first, cutting sides, then ends, to match, then, when fixed together, making the lights to fit the frame. Give the whole, when complete, three coats of stone-coloured paint.

FLOWER GARDEN (*Joseph H. Straker*).—We have, unfortunately, mislaid the sketch you sent formerly, and cannot now with accuracy recall the portion to which you now refer. The arches, however, already planted and with *Roses* established on them, should undoubtedly remain. Our chief idea in throwing the herbaceous border into the larger portion for general treatment was to enhance the effect of the chief part. We incline to the opinion that we did not realise the presence of the *Rose* arches on all sides, or the "Roses on rustic poles" in such near proximity would scarcely have been suggested. With these modifications the remainder would appear to fall into line. If, however, the matter is not now quite clear and you desire further suggestions perhaps you could favour us with a further sketch, as it is our desire to assist our readers to the best of our ability.

VARIOUS QUERIES (*Beginner*).—We should prefer painting greenhouse stands stone colour rather than green, as that colour soon becomes dull, and does not brighten the house. When stands are of a light colour and occasionally washed they look much better than dark painted ones, and make a pleasant contrast to red pots and green leaves. But the best time to paint the inside of a house is in the summer, when all the plants can be placed outside for a week or two. A strong turpentine smell is not good for plants. Of the tender and hardy annuals you name, sow seed in shallow pans or boxes about the second week in April; sow thinly. The soil should be fine, and have in it plenty of sharp sand. If you have none good get a bushel or two from a florist. When seeds are sown, just covered gently, watered, and placed where to be grown, shade with newspapers, in strong sunshine, till growth begins. Sow seeds of *Tomatoes* and *Cucumbers*, also, middle of April, in similar soil to the above named. Put 12 seeds of *Tomato* and 8 seeds of *Cucumber* in each of the 5-inch pots. In an unheated house growth will be slow but sure.

THE GARDEN

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PRUNING.

AMONG the many gardening operations that have to be performed as the seasons come round, few, if any, are more important and productive of good or bad effect, according to the manner in which they are carried out, than pruning, and it is probably not far from the truth to say that none is more imperfectly understood. Pruning is one of those gardening duties that it is almost impossible to teach on paper; it is essentially practical, and therefore it is difficult to teach theoretically. In this case, as also in many another important work of the gardener, an ounce of practice is worth a pound of theory; a few minutes' practical demonstration would teach more than hours of writing could do. It is not easy—in fact, it is almost impossible—to treat lucidly of pruning in one article, because there are so many different ways of pruning; certain classes of plants require certain sorts of pruning, and none other will produce such good results. The pruner should have a clear idea of the object in view before commencing to use the knife, otherwise it is easy to do much more harm than good.

To take first those shrubs and plants that are grown for their flowers. Some bear flowers upon shoots made the previous year, while others will blossom on shoots that have yet to grow. It is, of course, all-important to know to which of these classes the plant to be pruned belongs. Take the Rose, for instance; if you want the finest individual blooms possible from dwarf plants you prune these back to a few buds, so that they may produce two or three strong shoots, each bearing one or more blooms.

If quantity is of more importance than quality, the shoots are not pruned back so hard; more shoots and more blossoms then result. If, on the other hand, a climbing Rose is to be pruned, the long strong growths of last year are left to flower this year; when the blooms are over, these shoots are cut out, and others are encouraged to take their place. Supposing the plant to be pruned is a shrub that bears flowers on the current year's shoots, *e.g.*, the Ceanothus and Hydrangea, those made the previous year must be pruned hard back to ensure the production of vigorous growths. If, on the other hand, the flowers are borne on shoots made the previous year, as with the Winter Sweet and Forsythia, these must be left intact.

With fruit trees just as much, or perhaps more, care is needed, for in this case the operation is more complex. The fruit of Apples, Pears, Plums, and Sweet Cherries is borne chiefly on spurs (specialised growths upon which flower-buds form), and the aim of the cultivator should be to preserve and encourage these. We see how in pruning the flowering plants mentioned cutting back the shoots to a few buds at the base causes more shoots to grow. Precisely the same thing will happen if a shoot of one of these fruit trees is similarly treated, *i.e.*, more wood growths will result. Now this is just what the fruit-grower does not want.

It is evident then that pruning must be carefully carried out. Fruit spurs form naturally upon the shoots if these are not cut hard back. The motto of the fruit-grower should be to cut out rather than to cut back, for by cutting back more shoots will be incited to form, whereas by removing those for which there is no room, the others are allowed proper space for development. So much for the principal shoots. The production of spurs upon them is encouraged by arresting the growth of side shoots during summer by pinching off the tops, so as to help the formation of fruit buds at the base. These must be shortened at the winter pruning. In the case of the Morello Cherry and the Peach the fruit is produced directly on the shoots. Therefore they must be retained almost their full length, and must be cut out to make room for others when the fruit is gathered. We do not pretend to have entered deeply into the methods of pruning, but rather wish to show how important it is to know something of plants or trees before starting to prune them. With fruit trees even certain varieties need a special pruning, because of some peculiar characteristic they possess, either of habit of growth or manner of bearing. The person who prunes every tree alike without troubling to learn something about it beforehand can never hope to achieve success, neither, may it be said, does he deserve it.

OSTROWSKIA MAGNIFICA.

THE opinion expressed in THE GARDEN some time back that this noble plant is not "hardy" in this country tempts me to say a few words about it. Let me first say that such adjectives as *magnifica*, *superba*, and the like go, with me, very much against the grain. I start with a prejudice

against plants bearing such titles, and I think that nothing would induce me to take an interest in a plant dubbed *superbissima*. But *Ostrowskia* really deserves its title; when on a bright summer's day its large cups unfold (and one may watch the unfolding of the plaited corolla) themselves before one's eyes, the disappointments and drawbacks of gardening, the things which will not come on or will go off, are forgotten in the joy of gazing at its beauty. As to its being hardy, in the sense of resisting the frost and the other ills of an English winter, I can only say that I received my first plant years ago from that generous friend of English gardeners, now passed to the majority, Dr. Regel of St. Petersburg. It has passed, since it came to me, several severe winters on my bleak Eastern Counties hill, without any protection, and is alive and well now. There can be no question whatever about its being hardy.

Yet it is not, according to my experience, an easy plant to grow well. It needs two conditions, so it seems to me, which are not often met with together in our English climate. After it has died down, during late autumn and winter, it needs, or perhaps I should rather say it likes, to be kept fairly dry. This condition I can, with relative success, meet on my chalk hill. My present gardener, who came to me from damper regions, is never tired of expressing his wonder at finding the ground "dry as dust" when he digs down into it for a couple of feet or so in midwinter. But though *Ostrowskia* likes thus to be in dry quarters during its winter sleep, it needs, when it is pushing in spring, and especially when it is growing fast in summer, conditions of quite a different kind. Stinted of water then, its foliage is limp or even shrivels, neither flowers nor leaves expand as they ought to do, and the plant loses more than half its beauty. It is then that my bad time comes; for no artificial watering will do fully that which ought to be done by natural moisture, and I often recognise that what I have gained in winter I am apt to lose in summer.

This trouble of not enough water in late spring and summer comes very much to the front in the treatment of seedlings of this plant. *Ostrowskia* is not a very good seed-bearer. The capsules, it is true, go through the first stages of maturation fairly well, but before the work is hardly more than half done—certainly before the capsules are really ripe—come the late summer rains; many of the pods get mildewed, and bear imperfect seeds. Hence

it is a matter of importance to take the best care of such seeds as one can get. I sow the seed in the open, believing this to be with this plant, as with so many others, the best course, and if spring showers are adequately frequent all goes well; but if, as more often happens in my garden, placed as it is in "the belt of least rainfall" in England, spring is marked by long droughts, the seedlings suffer sadly; the leaves wither away before they have had time to form the little white tubers which they ought to form, and the seedling dies before it can complete its allotted cycle.

Another difficulty in the cultivation of *Ostrowskia* is that the plant resents being moved; at least, when it has got beyond the first or second year. The succulent Parsnip-like tubers are excessively brittle, and it requires the greatest care to remove a two year old or three year old tuber without breaking it. When they are older than this removal without breakage is almost impossible. A broken bit possessing an eye or bud will or may grow again into a strong plant, but it will take some time to do this. And even a whole tuber, removed without any damage whatever, will sulk; the year after removal it will appear a weakly thing, very different from what it was before removal, but, left alone, it will come up stronger and stronger every year. It is something we do not understand—this shock to what seems a self-contained mass of living matter given by mere removal from its surroundings. And even when the tuber is broken in the removal it would almost seem as if the mere removal did more damage than does the breakage. When in the attempt to remove a tuber, this is broken and part is left in the ground, the broken part left in the ground is almost sure to grow again, while the part which is removed may or may not grow. I had a plant which was placed in a shallow small bed in front of a low wall. It did not prosper; the situation was obviously too dry a one for it in summer. So, as I thought, I removed it, but I broke it in the removal. Of the pieces removed some died, others, after a period of sulk, grew into good plants. I planted another plant, an *Iris cretica*, in the place from which I had, as I thought, removed the *Ostrowskia*; but in the following spring the *Ostrowskia* sprouted again, and eventually grew into a plant which, though not such a fine plant as it would have been elsewhere, flourished sufficiently well to play havoc with the little *I. cretica* which I had put in its place. Last summer my gardener and I made a great excavation round the tuber, working away most carefully as if we were unearthing precious ancient delicate pottery, and succeeded in taking away a whole basketful of pieces of tuber, and leaving as we thought nothing behind. My gardener is perfectly sure that we have taken all away; I shall be convinced of this when I see that nothing appears this summer. We found that the tuber had grown vigorously into the pure chalk underlying some 1½ feet or more of made soil, and had burrowed underneath the foundations of the low wall. *Ostrowskia* is obviously not a "lime-hating" plant.

In my own plants, imported plants and seedlings, I recognise two varieties of flower, one a white, tinted with red, the other a white, tinted with blue or bluish purple. And in some very fine plants, for which I have to thank Mr. Amos Perry, I do not recognise more than these two types, though some of his plants and mine differ in the amount of tint, in the amount of divergence from pure white. Some perhaps appear to show the beginnings of a fuller colour. A "break" in the colour of the

plant would be a great gain. Differences may also be observed in the size, and to a certain extent in the form of the flower, some being flatter and more open than others, and also in the foliage and habit.

Ostrowskia seems then, according to my experience, to enjoy a deep, somewhat stiff loam, to like lime, and otherwise to repay being well fed. It needs shelter from winds, but must have full sunshine. It resents wet in winter, but must have adequate moisture in spring and summer. If it does well in a place never move it, rather move things away from it if these are troubling it. It is so good that many things may be sacrificed in order that it may show what a noble plant it is.

M. FOSTER.

Great Shelford, Cambridgeshire.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand.

A BREATH OF SPRING FROM SCOTLAND.

Mr. J. Jeffrey, The Gardens, St. Mary's Isle, Kirkcudbright, sends Snowdrops, Crocuses, Violets, Pansies, and other flowers that appeared without any protection. They are sent to show how mild the Scottish climate is on the south-west coast. Our correspondent writes: "Snowdrops are quite a month late, but are now plentiful. I am still able to gather over a dozen bunches of Violets weekly from a small plot of ground."

FLOWERS FROM MONKSTOWN.

A delightful variety of flowers comes from Mr. Greenwood Pim, Easton Lodge, Monkstown, County Dublin, with the following note: "I enclose a few odds and ends for the Editor's Table—*Crocus Imperati*, *C. Sieberi* from the open ground, also varieties of *Cyclamen Coum*, *Iris stylosa*, white and mauve, and various Lenten Roses. From under glass I send *Restrepia antennifera* and *Reinwardtia trigynum*, which gives a bright note of yellow at a very dull season. *C. Imperati* may always be found in flower on Christmas Day or before." The *Restrepia* is full of charm, the colouring rich, and the form of the flower quaint and unusual.

ERICA MEDITERRANEA HYBRIDA.

Messrs. James Smith, Darley Dale Nurseries, send flowers of this beautiful Heath, with the following note: "We are sending you flowers of *Erica mediterranea hybrida*, which was raised in these nurseries some years ago. Each shoot is tipped with white during the summer. The plants have been in bloom since the beginning of December at an altitude of 500 feet above sea-level, and they succeed best in dry loamy soil. It is a valuable acquisition to hardy Heaths." The following reference to it occurs in "Trees and Shrubs for English Gardens": "A hybrid between *E. mediterranea* and *E. carnea* (sold under the name of *mediterranea hybrida*) has been seen much of late, and is a very welcome little shrub, flowers appearing in some years even in November. Every year some expand before Christmas, and during January it is the brightest plant in the outdoor garden."

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

January 31.—Meeting of the Redhill, Reigate, and District Gardening Society.

February 1.—Sheffield Horticultural Society's meeting.

February 4.—French Horticultural Society of London's meeting.

February 6.—Mansfield Horticultural Society's meeting.

February 7.—Sevenoaks Horticultural Society's meeting.

February 8.—Sheffield Chrysanthemum Society's meeting.

February 10.—Royal Gardeners' Orphan Fund Annual Meeting.

Mr. Richard Dean.—Many who attended the great gathering of British gardeners on September 29, 1903, will remember the eloquent speech delivered by Mr. Richard Dean. This speech has been published under the title of "A Plea for Human Sympathy." "Let it," says Mr. Dean, "be as a hardy perennial, rooting deeply into our hearts and memories, constantly reminding us that the helpfulness which is our privilege to-day may be changed into helplessness to-morrow."

Rose Mamie (Hybrid Tea).—Under glass this Rose is a gem, every flower as perfect as Mrs. W. J. Grant. The colour when forced is a lovely fresh pink, and the blossoms are very sweet. Grown outdoors its colour is not quite so pleasing, but for form it will well hold its own. Mamie would make a good Rose for a pillar or to plant against a low fence or wall. It will also be a most useful kind for a standard, producing long half-pendulous shoots.—P.

The Chilian Crocus.—I thought it might interest some of the readers of THE GARDEN if I sent a note about our Chilian Crocus (*Tecophilæa*). They have proved perfectly hardy here and bloom well. We have them planted at the foot of a wall, about 3 inches deep, and under the shelter of a stone coping on top of the wall. The other lot of bulbs we did not get under the shelter of the coping, so that they were exposed to drip during the autumn and winter of 1903. In the spring we had the coping extended. I may say that the drip did not hurt them in any way. *Tecophilæa cyanocrocus* varies in colour, some being very light and some very dark, not showing the white throat. When in bloom they are beautiful; the colour is such a splendid blue. We also have a good lot of seedlings growing well. The most suitable soil is one free from lime. We mix peat, sandy loam, leaf-soil, and sand together, making a compost similar to that used for *Achimenes*. We take out the soil about 9 inches deep, then put our mixture in, make a hole with the dibber, and put the bulb in sand. After they are established they do well. The garden must be as free as possible from slugs.—JOHN TWEED, *Ketton, Stamford.*

Primrose Miss Massey.—"R. D.'s" note in your issue of the 14th inst. was of much interest to me, as I also have found this Primrose to be an undoubtedly shy seeder. I have pollinated scores of blooms since I first possessed it, and have only ripened one seed. This was in the autumn of 1900, and I was fortunate in raising from it a fine, sturdy plant, which flowered in May, 1902. The foliage is bold and handsome, the plant vigorous, and the colour of the flowers dark crimson; so dark, indeed, that they appear to have a black sheen or shading. Although it is consequently not so bright and showy in the border as Miss Massey, it is, nevertheless, a handsome variety. The individual pips are 1½ inches in diameter and perfectly circular, but, unfortunately, "pin-eyed." More unfortunately still, the plant inherits the sterile tendency so characteristic of its seed-parent, for in spite of three years' systematic and careful pollination no seed has been produced. I think I remember Mr. R. Dean stating, some time ago, that he had obtained several fine plump seeds from Miss Massey. Perhaps he will say what success he had with them.—SIDNEY HALLAM, *Sheffield.*

Rose Josephine Bernacchi.—It must be because this Rose is not known that one does not meet with it in many collections. It is usually looked upon as being a climber, but if the shoots are left long the variety will blossom as freely as an ordinary bush Rose. The colour is pale yellow, and the flowers of large size, the buds being as clean and pretty as are those of Mme. Hoste. If we want good yellow Roses, the so-called climbers must not be ignored. Where can we find a more useful golden Rose than Bouquet d'Or? Billiard et Barré, too, and Mme. Charles Monnier are exquisite Roses, all suitable for growing as bushes.—P.

Royal Horticultural Society of Perthshire.—At a meeting of the Town Council of Perth, held on the 9th inst., a proposal to present a challenge cup of the value of £10 to the Royal Horticultural Society of Perthshire was under consideration. The proposal was made in view of this being the centenary of the establishment of the society, and it was agreed, by fourteen votes to three, to present the cup.

Potato Eastern Star.—A slight error appeared in my note on the above in the issue of THE GARDEN of the 31st ult. (page 447). It reads, "Grown under equal conditions, the raiser, Mr. J. H. Ridgwell of Potato fame, assures me that from forty sets of this and Northern Star he obtained ½ cwt. more from the latter, and no trace of disease." I intended it to read, "It produced ½ cwt. more than Northern Star."—E. BECKETT.

"My Garden Diary."—Those who want to be reminded what to do in their garden in 1905, and when to do it, should obtain a copy of the booklet which Messrs. Sutton and Sons, Reading, publish annually under the above title. Each month's work in all departments is clearly set out. At the end of the booklet there are some extremely useful notes; for instance, the reader learns a good deal about bulbs, Lilies especially, and is taught the secret of success with certain flower seeds, notoriously difficult to raise. Then there are lists of bedding annuals, climbing annuals, everlasting flowers, and edging plants. In conclusion remedies for the commonest garden pests are given.

"The Formation and Management of Lawns."—This is the title of a booklet of some fifty pages, issued by Messrs. James Carter and Co., High Holborn. The information it contains will be found invaluable by those who have lawns to make and to keep in order. Instructions are given as to preparation of the surface, sowing, and after-treatment of a new lawn. The renovation of a worn-out turf is also considered, and there is a good article upon "How to Maintain a Lawn in Good Condition." The best manures, the selection of seed, hints on mowing-machines, and numerous other items are dealt with.

FORCING STRAWBERRIES.

NO fruits are more appreciated than early-forced Strawberries. They ripen at a time when choice fruits for dessert are not plentiful, and supply a want that is considerably felt without them. The work of preparing the plants is important, for unless this part of the management has been skillfully carried out no after cultural attention will wholly compensate for it. For this season's forcing, however, it is now too late to rectify defects, and therefore my remarks will be restricted to more seasonable work. A good method commonly practised for starting plants into growth after they have been properly top-dressed with a rich compost is to plunge the pots in a bed of warm leaves, placed near the glass of a pit that commands an atmospheric temperature of 50°, and subsequently, as soon as the flower-buds can be discerned, to move the plants into warmer quarters, where they are placed upon shelves near the glass in a light house. With us, however, success is secured by starting the plants in pits upon removable stages, placed near the glass over beds of warm leaves, which subsequently supply bottom-heat for Melons, &c.

The flowering season is a critical time, especially in the case of early-forced fruit, when the state of the weather is not usually naturally favourable for fertilisation. This may be satisfactorily effected, nevertheless, by keeping the heating apparatus warm, and the atmosphere fairly dry and sweet by slightly opening regularly both the front and back ventilators, and if these conditions are accompanied, as is necessary, by that of distributing the pollen of the blossoms at midday, when it is perfectly dry, with the aid of a camel-hair brush, a good set of fruit will be ensured. No trouble should be considered too great perfectly to fertilise the flowers, for unless this is properly accomplished the fruit will fail to swell properly. Another important matter is that of thinning the fruit.

This should be done as soon as it can be observed that sufficient leading berries are swelling to produce a satisfactory crop. These should be supported by stakes, or other similar means, so that they are fully exposed to the air and light. After the fruit is set a higher temperature should be maintained, 70° at night, with a corresponding day rise is suitable, but in order to obtain a high degree of flavour and colour—attributes which are, unfortunately, too often lacking in the case of forced Strawberries—a comparatively free circulation of warm air must be maintained through the structure from the time the fruit begins to colour until it ripens. Mistakes are often made through gathering the fruit as soon as it is red, though before it is perfectly ripe, and in consequence rich flavour is wanting.

Of all cultural details connected with this subject none is more important than that of watering, especially during the forcing period. If the plants do not receive regular and otherwise thorough attention in this way irreparable mischief will be done, for once the plants suffer from an insufficient supply of root moisture the fruit fails to develop satisfactorily. It is desirable for those responsible for crops of this kind to select a trustworthy man to water them. Liquid manure is equally important, and should be discreetly used from the time the roots of the plants become active until the fruit begins to change colour, while similar remarks apply to syringing in order to keep down attacks of red spider. Discontinue this while the plants are in flower and the fruit is ripening.

Much forethought and diligence are needful to keep up a continuous supply of ripe fruit, but by painstaking management in introducing fresh batches of plants, accompanied by a knowledge of the characters of the varieties grown, this becomes an easy matter. Here it is managed successfully with one sort only, viz., Royal Sovereign, though a few others are usually grown in a small way, either for variety's sake or for trial.

The Hendre Gardens, Monmouth. T. COOMBER.

NOTES ON HARDY PLANTS.

ALPINE PINKS.

PINKS, with their broad carpets of handsome foliage studded in spring and early summer with numerous flowers, may with justice be termed one of the chief ornaments of the rock garden; one that lacked a few representatives of this genus would be strangely incomplete. Consisting, as it does, of a large number of different kinds, the genus contains various species which may be used for many positions in the rock garden. Some are at home on sunny ledges, where their foliage forms a curtain over the face of the rocks; others may be



ALPINE PINKS IN THE ROCK GARDEN.

planted while very small in rocky fissures or in the cracks of old walls, where they quickly take hold, sending their roots down in search of moisture, and soon forming beautiful evergreen tufts. There are one or two which do not flourish under these conditions, but require more shady places in which to develop their full beauty, and some from higher altitudes need specially selected positions for their successful cultivation. Amongst the more robust spreading species *Dianthus plumarius*, with its numerous and varied forms, easily takes first place, growing almost anywhere, self-sown seedlings springing up in various places around the old plants. This may with advantage be used for covering the rougher parts and banks of the rock garden as well as old walls.

A plant with a much neater habit is our native Pink, *D. caesus*, which will succeed in similar positions. Of this species there are several forms,

some with stems 2 inches or 3 inches high, and bearing large single flowers, while others have branching stems and reach a height of 6 inches or more. *D. petraeus* is another species that forms large tufts of foliage with numerous small white flowers, while an old favourite is *D. arenarius* with its deeply-fringed blossoms. A shade-loving plant is *D. sylvestris*, which forms tufts of grass-like foliage and freely produced pretty pink flowers on stalks about 6 inches or 9 inches high. Almost the same habit as the last, but with longer grassy foliage and larger flowers, with a dark-bearded zone, is the beautiful *D. monspessulanus*. All these are easy to manage, and form a selection suitable for the ordinary rock garden. For those who have a taste for choicer and rarer plants that require a little more attention, there is the alpine Pink (*D. alpinus*), which may be grown in a sunny position planted in gritty loam. Others well worth growing are *D. neglectus* and *D. glacialis*, the latter of which benefits by the addition of granite chippings to the soil in which it is planted. Another, and one of the most beautiful, is the zoned Pink (*D. callizonus*), which requires a slightly shady spot. All are readily raised from seed sown in spring in slight heat. When large enough they should be pricked off into small pots, from which they may be transferred to their permanent quarters.

W. IRVING.

THE MANCHURIAN ADONIS.

THE Manchurian Adonis (*A. amurensis*), which came to us anew about eight years ago, when it was figured in THE GARDEN (July 3, 1897), has proved of more than ordinary interest to the British gardener. Not only is it the finest plant of a showy race, but so wonderfully precocious, and, though apparently frail, so wonderfully hardy, that the first half of January generally finds it in good flower. The buds have been visible since mid-December, piercing the soil when covered with snow, and they have grown steadily with every hour of warm sunshine, and are now in full blossom. The stems are still under 1 foot in length, and the leafage is still only partially developed, but in a few days the plants will resemble miniature *Ferulas*, and many subsidiary buds will be open also. The flowers are coloured a beautiful bright yellow, with ruddy bronze reverse of petal, and they exceed 1 inch in diameter, several approaching 2 inches when fully developed. It is very easy to grow, and will accommodate itself to any position or soil, but, like most *Ranunculaceæ*, it appreciates a cool, moist soil. I have seen five distinct forms, one semi-double and somewhat pallid in colour, but think the type the best plant for extended garden use. The warm border or rockery are places one could suggest for it, whilst for the cool alpine house, grown in roomy pans without disturbance, year after year, it is the plant *par excellence* for the winter season.

G. B. M.

THE BLUE-FLOWERED SHAMROCK.

THIS little rock plant (*Parochetus communis*), also known as the Shamrock Pea, comes to us from Nepal, and it is so charming throughout the summer that one can recommend it for any warm position on rockwork where it could ramble at will. One hesitates to call it rare, yet it is so in reality, a circumstance due mainly to its being neglected or overlooked when planting time comes round. It is a little tender—hard winters buffet it severely—and it is generally advisable to take up a "turf" of it for cold frame treatment throughout the winter. The leaves are three-lobed as in the Shamrock, and are borne on running stems that soon cover a square foot of soil. The flowers are exceedingly pretty, shaped like the Sweet Pea and coloured a beautiful sky blue. It is a plant one should grow like *Nierembergia*, a small patch being allotted to it, and the surface covered with large pebbles or broken rock. The growths pushing up here and there in a thin carpet, each bearing their quota of flowers, add much to the interest of the rockery when many of its occupants have passed their best. It is as easy to grow as the commonest weed, yet the prettiest plant of its order for the rock garden I know. It

could be used effectively as a marginal patch in herbaceous borders as one would use *Aubrietia*. Every bit of stem will root and grow freely if severed in the spring, whilst seeds are sometimes to be purchased and are easy to have in flower the first season. In the south patches square yards in extent are often met with.

G. B. M.

WITCH HAZELS AT KEW.

DURING the early days of January the brightest outdoor effect at Kew is produced by various species and varieties of *Hamamelis*, for, although several other outdoor plants are in bloom, they do not bear such a profusion of flowers as the *Hamamelis*. Single specimens and groups are to be found in various parts of the gardens, and this year their bright appearance is particularly pleasing after the gloom of the foggy weather experienced in December. Including species and varieties, four blossom in January, all being more showy than the autumn-flowering *H. virginica*. As to the number of species, authorities differ, some making but three, including *H. virginica*, others four. Those who incline to three species place *H. arborea* as a variety of *H. japonica*, others keeping them distinct. The flowers of the two are certainly very similar, the principal difference being in *H. japonica* having a greenish calyx, and *H. arborea* a reddish brown one. The habits of the two are, however, quite distinct, for while *H. japonica* forms a rather dense bush, *H. arborea* is of loose appearance, and forms a distinct central stem, in time assuming the proportions of a small tree. Both are fragrant, and the petals of each have the same wavy or twisted character, and are of a similar golden hue. Both are Japanese plants, and *H. arborea* was figured as *H. japonica* in the *Botanical Magazine*, t. 6659. *H. japonica* var. *zuccariniana* is a very distinct form, with lemon-coloured blossoms. At present (January 6) every twig is smothered with flowers.

The fourth plant is *H. mollis*, a Chinese species which is still rare, having been put into commerce but a few years ago. It differs from the other two by its large, ovate, woolly leaves; by its stems, especially when young, being covered with a dense pubescence; by its soft, velvety, brown calyx, and by its straighter petals, which are curved inwards to form a small hook at the end. The blossoms are primrose-scented, and very fragrant. When mature it is said to attain a height of 30 feet, but, like the others, it commences to blossom early, and specimens but a few inches high will bear numerous flowers. The *Hamamelis* are not difficult shrubs to cultivate. They like a light, loamy soil, and a sunny position; they will also thrive in a mixture of peat and sandy soil.

W. DALLIMORE.

THE LYRE FLOWER.

AMONG the valuable plants too little cultivated is the beautiful and graceful Lyre flower, or Bleeding Heart. This is one of Robert Fortune's flowers, brought by him from China in 1846, and it was speedily established in English gardens. The Lyre flower, as it is called from the suggestive form of its quaint waxlike flowerets, is known botanically as *Dielytra spectabilis*, but some authorities, among whom I notice Mr. Robinson, call it *Dicentra spectabilis*, and I fancy this is the more correct designation. As it is a Fume-wort, *Linnaeus*, who never saw it save in a dried state, called it *Fumaria spectabilis*. Though it was brought to these islands from China it is a native of Siberia, and was first introduced to European botanists by de Karamyschew, who first told *Linnaeus* of its existence. Fortune tells us that the Chinese botanists call it Hong-Pak-Moutan-Wha, or the red and white Moutan flower. It seems that the Chinese botanists do not take the characteristics of their genera from the flowers as we do, but from the habits and appearance of the plants. The leaves of the *Dicentra spectabilis* are not unlike those of the wild Moutan *Pæony*, and the flowers are red and white, hence the Chinese name. It is interesting to note these simple facts concerning the nomenclature of our familiar garden flowers. It is strange that the Lyre flower, being a native of the cold regions of Siberia, should be really only half-hardy in our milder climate; but I

fancy it is not so much a dry still cold that affects it as the icy winds of March. It is best to plant it in some sheltered spot, and after it has begun its spring growth to protect its young foliage. But it is really most satisfactory as a greenhouse plant, as it is easily grown, and is absolutely free from green fly or any insect pests. The stems die down after flowering, and then the plant, which is a thirsty subject, must be only moderately supplied with water. In the spring the growth will recommence, and it must be kept moist; the roots may then be sub-divided, or cuttings of the young wood taken, which will strike freely in sand. There are other *Dielytras*, or *Dicentras*. *Chrysanthra* is a fine yellow border plant, but wants shelter, and there is a little rock variety, *Dielytra Cucullaria*, which is more curious than pretty. *Dielytra eximia* is extremely handsome with reddish purple blossoms, and is also useful for pot cultivation and for the rockery. This last sort has a leaf something like Fern, which is yellowish green in tint. There is also, I believe, a white *Dicentra spectabilis*, but I have heard it spoken of as being of little floral value.

A. DE L. L.

SAXIFRAGA BURSERIANA VAR. MAJOR.

THIS is already in flower here (9th inst.); it is always looked upon as one of the earliest of alpine flowers, but it is certainly much earlier in flower here than usual. To these children of the snow we always give a more than cordial welcome. Coming as they do from the Southern and Eastern Alps the plants, which are now making such a gallant display, have been grown in pots plunged in sea-sand and fully exposed to the full sun for a couple of years. There are now several beautiful hybrids of *Saxifraga burseriana* in commerce, the best of which is *S. Boydii*, well known to all plant-lovers, but it is still extremely rare in cultivation. It appears to grow much better in the North than our more southern counties.

Southport.

W. H. STANSFIELD.

POTATOES FOR 1905.

WITH catalogues coming in by every post, one is reminded that the time is at hand for placing seed orders, and doubtless many are undecided as to which varieties of Potato shall be grown this year. Truly there is no lack of choice, and this is just where the difficulty comes in, for since the beginning of the boom new varieties have followed each other into the market with amazing rapidity.

From the recent articles which have appeared in THE GARDEN respecting the doubtful eating qualities of some of the newer Potatoes, it is evident that considerable care is needed in selection on this account alone, though the fact also remains that proof respecting the flavour of Potatoes must remain more or less a question of individual experiment, because soil has such an influence, and a variety which is hardly eatable in one district may be quite good in another. There is no advantage to be gained in delaying the

ORDERING OF SEED POTATOES

any longer, for it is not only unlikely that the price of useful varieties will fall lower, but the man who neglects the ordering of seed Potatoes till he wants to plant them takes the risk of receiving the unsatisfactory news that the varieties he has set his heart on are sold out. Another thing, it is quite evident that the late purchaser does not get the pick of the merchant's stock, and therefore, in order to ensure getting good seed, there is wisdom in ordering early. Thirdly, if seed Potatoes are obtained now, there is plenty of time for laying them out or fixing them up in shallow boxes or

trays to sprout, and it is a generally recognised advantage to have each seed tuber furnished with a stiff bristling sprout when it is consigned to the ground. Lastly, there is a comfortable feeling in knowing that you have got your stock of seed tubers all ready for planting.

Though, of course, a good many crops will be grown this season from home-saved tubers, there never was a time when more seed Potatoes were purchased in the early spring than now, and the good reason for this is not far to seek. Never were growers more alive to the advantages of frequent change of seed than now, and by change I mean radical change, not merely crossing from one side of a garden or parish to another. Even such changes as these may be good, but it is infinitely better to get seed Potatoes from another district altogether, and it is generally admitted now that there are no seed Potatoes for English soil like those grown in Scotland. Men engaged in the Potato trade are aware of this, and most of the leading firms dealing in seed tubers have them grown north of the Tweed. The renewed interest taken in Potatoes since the boom began has led to considerable experiment, and the general opinion is that frequent change is one of the chief essentials to success.

Sentiment must play a very little part in our Potato culture, and though we may have varieties for which we have a marked affection, it must not be forgotten that varieties of Potato are ordained by Nature to die out, and no matter how good a Potato may be, its period of usefulness is limited. In consequence of this, we must change varieties as well as seed, and though there is no need for the same frequency in the former case as in the latter, when a variety begins to show signs of deterioration, it should be allowed to give way to something else possessing vitalities as yet unimpaired.

When we come to discuss the question as to which are the best varieties to grow, the situation becomes more difficult. To begin with, every Potato grower wants one or two good

EARLY VARIETIES,

and if one has good soil and a warm situation, and wishes for high quality alone, irrespective of crop, one of the early Ashleafs will supply the need; but most of us, I think, aim at good quality, in conjunction with vigour and heavy cropping powers, and in this case the variety named can be improved upon. Ringleader and Duke of York are Potatoes too well known to need any long description here; but I question whether we have got anything better in the way of early varieties. The variety Sir John Llewelyn has made a name for itself as a first-rate early, and though some people are disappointed with its eating qualities, I have no hesitation in adding its name to the above pair, though I do not think Sir John Llewelyn is quite early enough to be relied on for the first dishes. In the way of

SECOND EARLIES,

Royal Kidney is a Potato well worth growing, and ever since it made its appearance in 1901 it has gradually worked its way to the front. I have grown it for two seasons, and am well pleased with its cropping powers, eating qualities, and disease-resisting

capacities. I am afraid the rush of new Potatoes during the past few seasons has led to some older, yet excellent, varieties being discarded, and a case in point is British Queen. Though somewhat liable to disease, this is an excellent second early variety, and for flavour I question whether it has any superior amongst higher-priced novelties. In fact, British Queen is far too good a Potato to be overlooked amid the rush of new varieties. If I were confined to

ONE POTATO FOR MAIN CROP

I should not hesitate to grow The Factor, which is certainly one of the best in cultivation, both as regards cropping powers, eating qualities, and disease-resisting capacities. As most people are aware, The Factor is a Scotch Potato, and amid the boom of sensations it has worked its way to the front by sheer merit alone. In fact, when such a variety as this can be obtained at ordinary prices, I see no reason for paying long prices for boomed novelties which one has to take entirely on trust. I could, of course, mention several other first-rate main crop varieties; but my object in writing this article is only to speak of a few good ones as a guide to any growers who are at a loss to know what to choose from the stupendous array of Potatoes now on the market.

G. H. H.

THE FLOWER GARDEN.

THE SNOWDROPS.

OF the many bulbous plants that one can grow in an English garden none appeals more strongly to the average Englishman than his patch of Snowdrops, and it is more than probable that the first flower of the year gives him more real pleasure than any of the showy plants of summer. The hunt for the first Snowdrop would doubtless lose zest were it generally known that several

flower naturally in late autumn, and others in regular sequence till the end of April; but these earlier varieties are not likely to become so widespread as the common Snowdrop—in truth, they are rather difficult to manage. The giant Snowdrops, also, fail to please everyone; they are too large, and not always satisfactory in growth. The so-called yellow Snowdrops, though extremely interesting as variations, look too sickly to give pleasure, and they are delicate. I think these colour variations fall an easy prey to the Snowdrop fungus. They do not appear to have sufficient constitution to make useful garden plants in their present state, and one can only recommend them as interesting subjects to study and develop, with a view to fixing the yellow colouring so that it is perpetuated in seedlings, which by selection and hybridisation may originate a wholly yellow-flowered race.

There are many Snowdrops quite unknown to general cultivation. Several of these are either giants or remarkable for their flowering season, and have only been introduced a few years; but many of the varieties of the common Snowdrop (*Galanthus nivalis*) have been handed down by the specialists of quite early times.

G. Alleni (Baker) is one of the rarest species, and a very beautiful Snowdrop it is (see illustration). It has cone-shaped flowers above 1 inch long, the petals of which are pure white, and crimped into a distinctly large horseshoe-like patch of green just below the wavy fold of the tips. It is very distinct, sturdy, and midway between the Caucasian Snowdrop (*G. caucasicus*) and *G. latifolius* as to suggest hybrid origin. It flowers in spring.

G. byzantinus is a strong-growing Snowdrop, with large bulbs much prolonged in the neck. The leaves resemble those of the Crimean Snowdrop (*G. plicatus*), but have rolled margins, not sharply reflexed. The flowers appear in January, and are under 1 inch long, narrow-petalled, but shapely; the inner segments have deeply-cleft lobes, and they are



A RARE SNOWDROP (*GALANTHUS ALLENI*).

green-tipped, entirely green on the inside, and just below the ovary on the outside. It precedes the common Snowdrop in order of flowering.

G. caucasicus (the Caucasian Snowdrop) (Baker) is a distinct type, very prolific, and an advance on the common *G. nivalis*, to which it is closely allied. It varies slightly in the size of its flowers and leaves, but the latter are erect-growing, broader than in the common Snowdrop, and very stout. The flowers are under 1 inch long, the outer petals of which are narrow at the claw, contracted at the middle so that the distended half of the petals appears spoon-shaped, very convex, and the inner petals are more fully revealed when the flower is closed than in any other species. The green spotting does not differ from that of *G. nivalis*. Numerous forms have from time to time been separated, the most distinct of which is *virescens*, whose outer petals are flushed green, as in the spring Snowflake (*Leucojum vernum*), but the colouring is more diffuse. This variety is often described as typical *G. caucasicus*, and the green outer petals are cited as a distinguishing character. It follows the common Snowdrop in order of flowering.

(To be continued.)

WORMS AND GOLF GREENS AND LAWNS.

WE have heard a good deal about Carter's Worm Killer for lawns and golf greens, and wrote to Mr. Lees, keeper of the mid-Surrey Golf Club, for his opinion. We publish his reply: "In answer to your letter *re* 'Carter's Worm Killer' and the wholesale slaughter of worms, I may tell you I have, since September last year, used several tons of the mixture on my putting greens here with most beneficial results. I have no doubt you would see in some of the London papers letters condemning my action in killing all the worms in my greens, as they said I was at the same time killing the grass by removing the drainage, but should the same people come here now and see the splendid results I have obtained by removing the majority of the worms—as it is almost an impossibility to kill every one—they might, perhaps, give me credit for knowing just a little more about the matter than they do themselves. Theory is one thing, practice is another; theirs was theory, mine was practice. I knew what I was about. I left one green just to satisfy anyone who thought I was doing wrong. I am killing the worms entirely at the first favourable opportunity. The mixture seems to act as a manure at the same time, as in a day or two the grass comes up very fresh. To inland greenkeepers I think it invaluable, as worms seem to multiply more quickly on the putting greens, and I think the continual rolling of the greens has a lot to do with this, so that in wet weather what with the sweeping and rolling of the casts made by the worms a paste is formed on the surface, and the air prevented from getting at the roots of the grass, and, of course, it dies out. I use a large quantity of sea sand well rubbed in with a rake to keep the surface of my greens open so that the air can get in. I could say more about this subject, but I think I have given you all the information you want. I have only to say that this 'killer' is the best I have ever tried, and there is no risk in using it."

SELECTIONS OF SWEET PEAS.

It is obviously impossible for anyone to give an exhaustive selection in a limited space, so I will content myself now with naming a set of twenty-four standard sorts that are in general cultivation, and which will meet the requirements of the majority of growers. Dorothy Eckford, white; Mont Blanc, for early flowering; King Edward VII. and Salopian, crimson; Prince of Wales and Lord Rosebery, rose;

Prima Donna and Countess Spencer, pink; Duchess of Sutherland, blush; Navy Blue and Countess Cadogan, blue; Hon. Mrs. E. Kenyon, yellow (so called); Miss Willmott, orange; Lady Grizel Hamilton, lavender; Mrs. Walter Wright, mauve; Duke of Westminster, violet; George Gordon, magenta; Black Knight, maroon; Dainty, Picotee-edged; America, red striped; Princess of Wales, purple striped; Jeannie Gordon, bicolor; and Gracie Greenwood and Agnes Johnston, fancy. All of these came very high in the classification of varieties conducted by the National Sweet Pea Society last season.

HORACE J. WRIGHT.

YEW HEDGES.

HOW TO MAKE AND HOW TO KEEP THEM.

NOTHING sets a garden off better than a well-kept hedge, while an untidy and ill-kept hedge spoils the effect of any amount of neatness in other parts of the garden. Several plants make good hedges, but for an inside hedge the common Yew holds the premier position, both for effect and for the ease with which it can be kept in good condition. No plant is more amenable to the shears, which is shown by the various specimens of topiary work in this country when it is clipped into fantastic shapes of animals, birds, pagodas, &c. The making of a Yew hedge, however, requires a certain amount of forethought to ensure success, as any mistakes or improper work at the start will show themselves within a year or two, and it will take a considerable amount of time and labour to put matters right. In the first place the site of the hedge should be staked out, and if stakes of about the height of the proposed hedge are used, and put in about 10 yards apart, a rough idea of what the finished hedge will look like can be obtained, and any alteration required be effected at once. After the length and height of the hedge have been decided on, a start should be made at once to prepare the ground for the plants, and this must be thoroughly done, as upon it the future well-being of the hedge almost entirely depends.

Preparing the ground.—The ground should be trenched 3 feet wide and about 3 feet deep, but the depth will have to depend on the nature of the subsoil, though the ground must be broken quite 3 feet deep. If the subsoil is found to be very wet, drains must be put in to carry off the superabundant water. These should be ordinary round agricultural drains, and be laid at right angles to the line of the hedge about 4 feet deep, though the depth must be according to the slope of the ground and the fall that can be obtained to carry off the water. From 15 yards to 20 yards or even more will be sufficient distance for the drains, as the aim is only to carry off the extra water that would otherwise stagnate and rot the roots, and not to make the ground thoroughly dry. Yews like a moderately moist soil, but anything approaching stagnation is fatal to them. To trench the ground a portion about 2 feet wide should be marked off, and the soil taken out and wheeled to the other end to fill up the last trench. If any poor sand or gravel or clay is encountered in the lower part of the trench, enough of it should be thrown out to make the trench from 2½ feet to 3 feet deep, and the bottom should also be broken deeply to allow water to pass through. Another length of ground should then be marked off, and the soil turned over into the trench already made, rejecting all poor ground as before. The part taken away must be replaced by good soil brought to the spot. If the trenching is thoroughly done from end to end of the proposed hedge, a good and uniform depth of soil will be obtained for the plants to grow in. A layer of well-rotted manure should be worked in about 18 inches from the surface, but no lower, as if put at the bottom of the trench, which is sometimes advised, the goodness of the manure is washed down into the subsoil, where it is of no use whatever to the plants.

The plants.—Having prepared the ground beforehand, the next step is to procure the plants, the size of which will, of course, depend upon the height required. Yews of almost any height up to 8 feet can be bought, though the larger sizes are rather expensive. The Yew, however, is a slow-growing plant, and it takes many years to get a good, well-rooted plant 6 feet high and well furnished to the ground. In selecting the plants choose those of the same diameter from top to bottom, and not pyramidal-shaped plants, as these latter will require a lot of hard cutting at the base to bring them to a straight line. A plant cut back to hard wood at the base, without having the top cut off, rarely, if ever, grows shapely again, as the sap goes to the top, to the detriment of the lower parts. Care must also be taken that well-rooted plants are selected, the root being of more importance than the top, provided the latter is not too rough.

Planting.—The planting should be done as soon as the plants arrive, choosing a day, if possible, when the ground is rather dry. If the ground happens to be very wet, lay in the plants until it is suitable. When planting open the ground out in the line of the hedge, allowing plenty of room to spread the roots out, so that the plants have every chance of making a good start. They should be placed in temporarily at first, so that some idea of the distance they will be from each other can be obtained. They should be near each other, without undue crowding, and be planted about an inch lower than they were before. The roots should be drawn out on each side clear of each other, and fine soil worked by the hand among them, finally covering the whole in and treading it very firm. No manure will be required when planting, but a good top-dressing should be given about the following May or June to keep the roots cool and moist during the hot summer months. The best time for planting is October or early November, and next to that is from the middle of February to the middle of April; the middle of winter is not a good time, as the thick, fleshy roots of the Yew are very liable to rot during wet, cold weather such as is often experienced in December and January, when growth is inactive and the ground is too cold for immediate root-action after transplanting.

Bagshot, Surrey.

J. CLARK.

(To be continued.)

THE CHILD'S GARDEN.

IN my last article on the Child's Garden I dwelt on the importance of encouraging in young children a love of flowers, and lately a little episode came under my notice which gave me great pleasure. In front of a beautiful flower shop in a well-known thoroughfare I noticed a nice-looking nurse with three children, whose ages varied from four to seven years. The nurse was putting them through a catechism as to the names of the flowers that were displayed in lovely masses in the windows. I lingered close to the little group, a delighted listener to a lesson I could not have wished better given. It was a pretty game, and it was evidently not the first time it had been played in like fashion. Each child was trying who could say first the name of the flower indicated—the eager sweet faces of the little girls, and the intelligent questions of the nurse, who knew perfectly well what she was talking about, convinced me that very often the best teaching is to be found outside the schoolroom, and that the unregarded moments of our children's lives are those of the greatest importance to their future well-being and success. There are many simple lessons to be taught in the child's garden. The difference between bulbs and tubers, for instance, and after that has been learned the distinction between Crocus corms and Snowdrop bulbs. Then show them Hyacinths, Daffodils,



A REMARKABLE PLANT OF ROSE BENNETT'S SEEDLING.

and Tulips, and then the Lilies, explaining to them that the Lily of the Valley is not a true Lily, the *Convallaria majalis* being a favourite and familiar flower with children. In March I should show them how to sow a few annuals in boxes for planting out in May, and these can be left in sheltered sunny places, without teasing the gardener to find room for them in his overcrowded frames. Then a lesson in potting may be given, and this is always a delight after the mud-pie stage of their existence is over. The little hands soon get quite conversant with the work, and it is amusing to watch the importance with which it is carried out—the crocking and pressing in the earth, the turning and tapping of the pot, and the careful adjustment of the roots of the precious *Geranium* which is having a change of quarters. The tying and staking of the plants in the little garden is easily learned. Give each child a bunch of raffia, and show him how to wet each piece by dipping it into his watering-can, help him to adjust the stake or stick, and make him pass the raffia twice round the stake and once round the stem of the plant, tying the knot on the stake and not on the stem, cutting off the ends neatly with his little gardening scissors. Try also to get him to judge of the length of the piece required before cutting it off. When the stakes and tallies are done with let them be collected and put away clean for future use, and see that empty pots are not allowed to be about to harbour slugs and snails, and that the little paths are kept neatly swept and weeded.

Above all, teach your children not to be afraid of earthworms, and never to lose an opportunity of learning the history of the insects they find during their labours. Few garden boys know a wireworm when they see it. I always have to teach my lads, and it is both wise and merciful to show children the difference between insect pests and harmless insects, and if it is necessary to kill anything the young child need never be the executioner. A child well taught seldom forgets, and impressions are easily fixed on their plastic

young minds; but, again, a child's thoughts are as the wind's thoughts—fresh and beautiful, but elusive. The distraction caused by the hovering butterfly or the passing of a bird will cause your lesson to be lost, and truly we would not have it otherwise, for, as I have said before, we lose more than we gain if everything is done to take the joy out of the child's hour in the little garden. Directly there is a sigh—and these small men and women will sigh sometimes as though the weight of the world were on their shoulders—stop the lesson and send the little gardeners for a romp in the orchard or a race along the gravel paths. The children, too, must be left to themselves a great deal, for the mistakes they will make are excellent lessons, as we so well know from our own experiences. There will be constantly calls on mother or father, and despairing confessions of departure from rules, and dreadful failures, told with solemn faces and quivering lips, some dying plant or decapitated Rose held out to your pitying gaze, and adequate consolation demanded—and, of course, given. Little flower shows can be given in the garden during the summer, to which neighbouring children may be invited to exhibit, including cottage friends, the prizes being pots of flowers, or packets of seed, or tools. Tea and games after the show is over make up a charming little fête. Children love collecting wild flowers and finding out their names in one of the many delightful books now to be had. These collections, arranged in groups and bunches, can be added to the contents of the flower show—and here again is an opportunity for colour suggestions—and a pretty little series of lessons may be given by showing the relationship between the wild flowers and the garden variety without getting on the dry lines of botanical research. I know children who are well up in botany and can classify plants, but are ignorant of their names and requirements. All that is necessary for our baby gardeners to know at first can be taught them by their parents during the sunny hours in their garden. It is an age of

too much science and too little common-sense. The child is treated like a small machine, to be eventually converted into one of larger dimensions and more steam power, and the consequence is bad work, because the love that maketh great the worker's art has surely been eliminated, and the professor rules where the lover of Nature once worshipped his eternal God.

'Oh! how skilful grows the hand
That obeyeth love's command.
It is the heart, and not the brain,
That to the highest doth attain,
And he who followeth love's behest
Far exceedeth all the rest.'

AUGUSTA DE LACY LACY.

THE ROSE GARDEN

BENNETT'S SEEDLING.

THE value of this charming Ayrshire Rose lies in the perfect purity of its blossoms. Many of the group, and also of the allied *R. sempervirens*, have a pink or crimson tip to, or suffusion of pink in, their buds. This, although pretty in the extreme, somewhat mars their effect when the Roses are desired as a contrast against such brilliant

kinds as *Crimson Rambler*. The Ayrshire and sempervirens Roses are the best companions to *Crimson Rambler*, with the one exception of *Mme. d'Arblay*, as they blossom almost at the same time, certainly later than *Aglaia*, *Thalia*, and some others of the multiflora group. A well-developed pillar, or arch, or weeping standard of Bennett's Seedling is a beautiful floral picture which makes one regret its season of flowering is so very brief. The snow-white flowers are small and double, and so lavishly produced as to be a perfect mass of white. I think we only get the true beauty from these Roses when they are planted against a 15 feet to 20 feet pillar, or as shown in the illustration.

An old decaying tree is also a suitable support for them; but wherever they are planted careful preparation must be given to the soil. A hole 3 feet deep and as wide is none too large, and it should be filled up with good soil, maiden loam from an old well-fed pasture being the best, with a moderate amount of manure.

I have seen the great advantage of having these Roses upon their own roots that I have no hesitation in commending them before budded plants. I firmly believe we should have less mildew and stronger plants. P.

ROSE E. VEYRAT HERMANOS.

THIS beautiful Rose, which gained a silver medal last September as the best Tea Rose in the show, is not a suitable variety for a bed. It is so rampant in growth that it needs a good-sized wall to allow space for its vigorous shoots. We saw this Rose last summer doing splendidly on a south wall, its growths being trained upright to a height of 5 feet or 6 feet, and then trained horizontally. It is not a very prolific bloomer, but when the fine buds are growing near a wall they develop into grand, handsome blossoms almost as rich in colour and form as *Comtesse de Nadaillac*. If you require a few good dwarf-growing Teas and Hybrid Teas to take the place of this Rose plant *Mme. Ravary*, *Souv. de Pierre Notting*, *Lady Roberts*, or *Mme. Vermorel*.

MARGUERITE CARNATIONS.

OF great service for yielding cut flowers in autumn and winter is this useful group of Carnations, a packet of seed of a good strain giving a large percentage of good double flowers. Seed should be sown in pans of light rich soil in March, and again at the end of April, for a succession of flowers. A position on a shelf in a cool house will suit them admirably. Cover the pans with glass and paper till germination takes place, when the seedlings may be exposed to the light. When large enough to handle conveniently, prepare boxes or pans of good rich soil, and prick off the seedlings 3 inches apart each way. After well watering they may be returned to a cool house or frame, and attention given to shading and watering. They will rapidly increase in size under these conditions, and when furnished with good roots they may be lifted and put into pots 5 inches in diameter, and placed in the open on a bed of coal ashes, staking them when necessary. When established give weak manure-water, and disbud for larger blooms.

CHAS. JONES.

It is no small advantage to have a race of Carnations that will flower in August if you sow the seed in February, for this is what the Marguerite Carnations will do. The seed must be sown in pans under glass in a house that is slightly heated. As soon as the seedlings are, say, $1\frac{1}{2}$ inches high, transfer them to small pots, placing one seedling in each pot. As they grow and the weather becomes warmer, they must be given more air, so as gradually to harden them off, for they must be placed out of doors in April. They may either be planted in the border or put into pots, tubs, or vases. If placed in vases they make a charming display in late summer. I have seen vases filled with them placed along a terrace walk that were a delightful feature throughout August and September. Keep the colours together as much as possible, for now they can be obtained fairly true. The result will be far more effective than if the colours were indiscriminately mixed. Little trouble attaches to their cultivation. Some care is needed when transferring the plants from the pans or pots so as not to damage the roots. The soil should be watered an hour or two before the plants are taken up, otherwise if they are dry the soil will fall away from their roots. See that the vases are well drained and that the drainage is clear.

Y. Z.

TREES AND SHRUBS.

TREES IN WINTER.

WINTER is the time in which to become really intimate with one's trees. They have nothing to hide; they are naked and unashamed. Even the birds' secrets are revealed; their summer homes are tossed about at the mercy of every wind of heaven. How wise are the birds,

and how fortunate! They fare south, like the gipsies, following the sun. In bird-land it is never winter. But it is otherwise with the trees, who must stand fast and take whatever comes. All that they can do is to discard, as soldiers do, all useless burden. Yet, in other respects, they are more like Quakers, holding the doctrine of non-resistance, than like soldiers. For they are unarmed, and may not oppose force with force.

The company of trees is good and elevating, but one needs human companionship as well. In a great forest, where tall trees grow close

become! One of England's most famous poets wrote long ago:

"Love is flower-like; flowers are lovely;
Friendship is a sheltering tree."

In this house there is a room into which no pictures are admitted except portraits of the family. But there is a pet horse with his young mistress on his back; and there are pictures of some of the mute members of the family, the trees. Here is the "Old Monarch," the "Buttressed Oak," the "Gate Tulip Tree," the "Flicker Oak," and other tree friends and comrades.

Here is the mourning Maple, who has never held her head up again since the time of the great storm several years ago, which left her a broken and twisted wreck. From a remarkably shapely young tree, 30 feet in height, she was battered in a few hours into a dwarfed and unsightly mass of broken limbs. At first it was thought best to complete the work of destruction, and the wood pile might have been her destination but for the fact that when the new green of her tender young leafage appeared we had not the heart to destroy the quivering thing so retentive of life. Now this Maple is one of the most picturesque trees on the place. Singular to relate she has put forth very many whip-like branches, every one of them with a downward tendency, making in summer weather a tent of green, a cosy outdoor parlour, with *portières* that sway lightly with every breath of wind, and give delightful glimpses of the garden just beyond.

In the winter I go out and stand beneath a great Oak or Tulip tree, and look at it long and lovingly, until every part of it is photographed in mind and memory. What affection, what familiarity, what reverence even enters into my feeling for it! I note its great trunk, its furrowed bark, all its spread and sinuosities of branch and twig. Every angular dip, all the ramifications of its limbs become as well known as the face and form of a human friend.

Different trees affect one differently, but it is to the Oaks that the Nature-lover goes for strength. They are like wise old men, the ancients of the race, who give good counsel.

With the Birches I am on equal terms. There is a playful badinage in the toss of their spray; they wave friendly white arms in greeting as I approach.

Few trees are more companionable in winter than a group of Birches. They seem in their element in the coldest weather. They do not shrink and shiver away from the wildest blast, but bend gracefully, sportively, and recover themselves like agile Indian runners in a game of ball. Some trees look sulky and oppressed in bitter weather, but the Birch has a radiant joy in the tumult of the elements. All the different species have this peculiarity, which makes a group of American Birches a most desirable feature of the winter landscape.

Of these trees we have five species in the east of North America. Their common names



FLOWERS OF THE MARGUERITE CARNATION (SLIGHTLY REDUCED).

together, the wanderer feels a sense of desolation of lonely awe. He is so little and so insignificant. The trees murmur together, high over his head, in a language that he does not understand, and that has a tone of menace towards their pigmy intruder. He feels as a dwarf might feel in an army of strange giants. They are "other folk"; they live their own lives aloof from human cares, and needs, and desires.

But when a great tree grows in one's own garden spot, when we have wintered it and summered it, when we have played under the spread of its branches, and grown up in its protecting presence, how differently we come to feel towards it! What staunch friends we

are the White, the Yellow, the Paper, the Red, and the Sweet Birch. All of these names apply to some peculiarity of the bark of the trees. Take, for instance, a fine specimen of the Yellow Birch, a tree little known, I fear, in England. How distinct is the colour of its trunk and branches, how cheerfully it lights up the copse in which it grows! Its botanical name is *Betula lutea*. It becomes a tree of the largest size, sometimes 90 feet high. Perhaps no other tree has such bright - coloured bark. In the sunlight it has a metallic lustre like bronze. This bark, with its brilliant reflections, peels into sunny rings

and tendrils like the curls on the forehead of a young girl. It makes a beautiful contrast to the White, Red, and Sweet or Black Birches. Why are these trees not seen more frequently grouped together among Evergreens? Few, if any, forest trees are so effective in the winter. Those who have seen them at their best will, I am sure, bear me out in this statement.

U.S.A. DANKE DANDRIDGE.

A WINTER-BERRIED SHRUB.
THE shrub illustrated (*Skimmia Foremani*) is one of the brightest of winter-

berry-bearing shrubs. The *Skimmias* are natives of the Himalaya and Japan, and among the most useful of small evergreen shrubs, looking bright and cheerful all the year with their full-green polished leathery foliage, while in early summer they bear a quantity of whitish, sweet-scented, rather Privet-like bloom in dense panicles, and in winter make a brilliant show with their closely clustered scarlet berries.

Skimmia Foremani appears to be a larger form of *S. oblata*. No shrub is better for the rock garden in cool peat or peat and loam. The berries are held the second year, and keep their colour only a little darkened, though they lose somewhat of their lustre. The two smaller clusters of berries in the illustration are the remains of last year's fruits.

VERONICA PARVIFLORA.

WITHIN recent years shrubby *Veronicas*, mainly natives of New Zealand, have grown greatly in favour with the public. It has been found that more of the species are hardy than was at one time supposed, and their beauties of foliage and flower have secured them at least a share of the notice to which they are justly entitled. The variations they show from seeds, and the ease with which they hybridise with each other, have drawn the attention of some skilful raisers of plants to their possibilities, and a number of seedlings and hybrids of considerable value have been secured. Among the most successful raisers of such forms from the hardy species, perhaps the leading place is taken

by Mr. Robert Lindsay, Kaimes Lodge, Edinburgh. It is not my purpose at present, however, to speak of these hybrids, but to draw attention to one of the species which, if not absolutely hardy everywhere, is practically so. It stands all but the most severe winters with me, and young plants are uninjured even then, while the old ones start afresh from the base even after the worst winters on record in the last decade. It was also hardy with the late Rev. C. Wolley-Dod at Edge Hall, in Cheshire, a garden known as a cold and trying one for many plants generally hardy in the three kingdoms.

Veronica parviflora is a pleasing shrub of evergreen habit, except in very severe winters. It may readily be kept in a small state by cutting it back after flowering; but it is never very tall with me, and I have old plants not more than 3 feet or 4 feet high. In a small state it is a neat rockery plant, its narrow, glossy leaves being both pretty and elegant, while its appearance in autumn, with many little spikes of soft-looking white flowers, is very pleasing. It blooms here for months together, and is one of the last flowers to disappear before the frosts of winter. There is no difficulty in propagating this *Veronica*, which can be raised from seeds or increased by cuttings. Self-sown seedlings spring up in considerable numbers and generally make strong plants.

S. ARNOTT.

Carsethorn, by Dumfries, Scotland.



SKIMMIA FOREMANI IN

WINTER.

(SLIGHTLY REDUCED.)

(This is one of the showiest of shrubs in winter; it has scarlet berries.)

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

PRUNING GOOSEBERRIES.—If we start with a cutting, the first season's growth must be shortened back to induce more branches to come forth. Always bear in mind that by pruning to a bud pointing in a given direction we can control the shape of the tree or bush. The best form for a Gooseberry bush in the open garden is what is termed the basin shape, where the branches form in whorls round another centre. To obtain abundance of fruit leave a young shoot wherever there is room; all other shoots to be spurred back to not less than half-an-inch, but all leading shoots and others left to fill open places to have only the soft, unripe points removed. Keep the branches off the ground.

Pruning the Black Currant.—The Black Currant bears chiefly on the young wood; therefore the pruning will be directed to fill the bushes with short-jointed young wood, thinly enough placed to ensure perfect ripening. No special effort in training is required. We simply want a bush with the branches regularly placed so as to catch every gleam of sunshine and free circulation of air. Young branches coming up from the bottom may be encouraged, and occasionally an old branch may be removed. Very little shortening is required. A Black Currant bush can scarcely be too large if the habit is compact.

The Black Currant Mite.—In some gardens this has been allowed to extend through ignorance, but now everybody is becoming acquainted with the cause of the abnormally swollen buds which appear in spring—thinly at first, but if neglected rapidly spreading. There ought to be no difficulty in stamping it out. In bad cases, destroying the bushes by fire seems to be the right course; but if the approach is noticed at first, and the buds are cut off and burnt, it ought to be stopped if thoroughly treated. A heavy dressing of manure will be useful, as all insect pests are more troublesome to weak bushes.

Pruning the Red Currant.—To obtain fine fruit and a good deal of it spur-pruning is best, and the young wood should be thinned and shortened back in summer. Prune when the bushes are young to obtain an open centre with two or more whorls of branches round. The White Currant must be treated on the same lines as the Red. Red and White Currants can be planted on north walls or wood fences, where, if closely netted, the fruit will keep till late in autumn.

A Lawn from Seeds.—The ground must be well and deeply broken up and manured in winter, taking out all roots of perennial weeds. Then about March complete the levelling, rake smooth, and make firm by treading and rolling, leaving a perfectly smooth level surface. Sow the seeds thickly, as probably the birds will get some, though this must be guarded against by using black cotton if necessary. A bushel of seed will be required to sow a lawn 100 feet by 50 feet.

Improving Weakly Lawns.—The present race of tennis players want every blade of grass cut down to the roots, and where everything is cut and taken away it is necessary to take pains with a lawn to keep it in good condition. The greatest improvement in a weak lawn I have seen has been by the application of 4lb. to 5lb. of basic slag in autumn, say October, followed in February by 3lb. per rod of nitrate of soda. This dressing will last for two years. Lift the cutters a little higher to clear the roots of the grass, there will then be a firm foundation.

Weedy Lawns.—Good turf near towns is difficult to obtain and expensive, and if it cannot be obtained

free from weeds it will be better to sow seeds. In country places turf of good quality can sometimes be obtained from the roadsides; but surveyors are getting more strict, and rightly so, and this source will probably be cut off. The best turf is obtained from a sheep run, and this can generally be had on large estates; but the only chance for outsiders is the building estate, where the grass fields are being utilised for building. A yard of turf is 3 feet long and 1 foot wide, and buyers should insist upon having measure. The price varies from 8s. to 10s. per 100.

Making a New Lawn.—A tennis lawn, to give plenty of freedom for play, should be 100 feet long by 50 feet wide. Grass will grow, in a certain sense, anywhere; but to make a lawn that will keep its colour the soil must be in good condition. First see to the levels and if any earth has to be moved. Get it into shape, then go regularly over it with the spirit-level and straight-edge, and drive in stumps 10 feet apart. Never trust to the eye in such matters, as the levels should be exact. The land should be deeply stirred, and manured if necessary. Rake smooth, and make fairly firm before laying down the turf.

Dividing Hardy Plants.—There is much of this kind of work to be done in many gardens. Old plants of Phloxes, Harpaliums or Sunflowers, Pyrethrums, Michaelmas Daisies, and other free-growing subjects should be reduced in size annually if fine spikes of flowers are wanted, and every three or four years take the plants up, trench, and manure the borders, and replant. This gives an opportunity to adopt a different system of grouping, and possibly increase the effect. Something such as the tall spiral-growing Delphiniums are most effective as dot plants. Others of lower growth are best in groups.

Some Plants Resent Disturbance.—To mention only a few. We never transplant Madonna Lilies if they are doing well. Years ago we had the finest group of them we have ever seen, and in a weak moment we moved them to a more prominent position, and they never flowered so well afterwards. Paeonies take a long time to establish, and when doing well let them remain, but apply rich top-dressings. The same may be said of Herb Lilies and Dictamnus Fraxinella, and this is specially true of the Christmas Rose.

Herbaceous Phloxes.—Both the early and late-flowering kinds are charming, but they are strong-rooting things, and soon consume all the food within their reach. They may be kept growing for a time by heavy top-dressings of manure, but they should never be left more than two or three years on the same spot if fine spikes of flowers are wanted. February or March is a good month for division.

Hardy Herbaceous Lobelias.—There is a greater demand arising for this class of plants. Some of the hybrids are very pretty and interesting, easily propagated from offsets in spring; and seeds sown now and grown in heat will make plants large enough to plant out in May. These plants love moisture, and when planted out should have good soil, with a layer of cow manure deep in the bed.

Preparing for Spring Propagation.—Zonal or bedding Geraniums, Fuchsias, Heliotropes, Petunias, and other soft-wooded plants usually propagated in early spring should be warmed in a night temperature of 50° to 55° to soften the growth. It may be taken as a general principle that cuttings of plants from a cold house will not strike well in strong heat, but if the plants are first warmed and the young soft shoots taken every cutting will strike root.

Family Groups.—A group of the choicer Primulas on a shady bit of rockery, where they can nestle in the shelter of the stones, is always interesting, and the same principle can be carried out with other families. When this is done the right soil can be given, and the best position chosen, which makes success sure. Iris reticulata is a lovely thing in a mass on the lee side of the rockery in March.

Tender Annuals, such as Verbenas, Lobelias, Petunias, and Begonias, should be sown early in heat. Verbenas and Begonias especially should be sown early in February, as the seeds take some time to germinate. Lobelias of the blue-flowered, dwarf-bedding section are best sown in autumn and grown cool; but if the sowing is delayed, the warm treatment must be continued for some time. The soil, both for seeds and cuttings, must be made firm, and they must be kept close.

Suitable Conditions for Striking Cuttings include sandy soil, with a layer of sand on the top; clean pots, very freely drained. The size is not a matter of much importance, but 5-inch pots do well; and where many cuttings of particular plants are wanted we use shallow boxes that will hold several dozen cuttings, pot these off singly as soon as rooted and hardened a bit, still keeping the young plants in the warm house till established.

Carnations and Pinks from Seed.—There is something fascinating about raising seedlings, especially to the beginner who has had no previous disappointments to deplore. But in buying Carnation seeds do not touch the rubbish. Better give 2s. 6d. or more for a small packet from a grower who has a reputation than waste time and space over inferior things. Perhaps the best course for a beginner would be to buy a few good plants, fertilise the blossoms, and save seed. Sow seeds under glass in gentle heat in February or March, and prick out 6 inches apart in a prepared bed when hardened.

Careful Watering.—The use of these words may—and, I think, does—confuse the beginner. Many appear to think when they are told to water carefully that only small quantities should be given, and a good deal of mischief is done by giving a small dribble on the surface. When the soil in which a plant is growing is dry, enough water should be given to moisten all of it, the surplus escaping through the bottom; then leave the plant till the soil is dry again.

Antirrhinums (Snapdragons) for Massing.—The self-coloured Snapdragons have been much improved of late years by careful selection of the seed parents. We have now carefully selected stocks of white, yellow, and crimson varieties which come true from seeds and make excellent beds on the lawn or groups in the borders, that will flower all the season till stopped by frost if the seed-stems are removed occasionally. Sow in heat early in February. Prick off into boxes when large enough, and plant out 9 inches apart when hardened off in May.

Planting Box Edgings.—It goes without saying that every good gardener knows how to plant Box edgings, but some of the so-called gardeners make a terrible hash of it, and this is one of the jobs which cannot be scamped. The site should be deeply dug over, and fresh soil added from the border near, and some of the exhausted soil removed if Box grew there previously. After digging tread firmly, and add more soil to make up the level, then draw the line tightly, and beat down the surface. Cut out the trench deep enough to plant the Box, leaving a straight firm face for the Box to rest upon. Fix the Box evenly and firmly about 2 inches above the ground level. E. H.

THE FRUIT GARDEN.

EARLY DESSERT APPLES.

IT is an open question, and a question often discussed, as to which are the best early dessert Apples. Those having large gardens can afford to plant various sorts, and thus find out for themselves the ones they like best, but with those whose gardens are of limited extent and who nevertheless wish to have one or two early Apple trees in their garden the case is very different. Among the most perplexing questions that trouble the amateur is that of finding out the best varieties of the various kinds of fruit trees he may wish to plant, whether Apples, Pears, Plums, Cherries, &c. It is with the object of helping such amateurs in their selection that the following lists are submitted. I ought here to remark that when a variety is recommended to be grown as a bush or pyramid in a garden, the tree should be grafted or budded on the English Paradise stock, but when recommended for planting in an orchard the trees should be worked on the Crab stock.

The following in my opinion are among the best of the first early Apples, and are ripe in July:

Mr. Gladstone.—This variety is of good flavour, is a free bearer, and certainly one of the most handsome of the early sorts, the colour of the skin being red, with yellow stripes. It is a popular market variety, and will succeed as a bush in the garden or as a standard in the orchard.

White Joaneting.—This is the earliest of all Apples, and is ripe in the South of England in the middle of July. More suitable for growing in the garden than the orchard.

Early Harvest.—This is a stronger growing sort than the others mentioned, and succeeds well as an orchard standard, as well as a bush or pyramid; it is ripe at the end of Ju'y. These three varieties are well worth growing, but to those only wanting to grow one tree of an early Apple my selection would be Mr. Gladstone. For the information of the inexperienced it may here be said that the earliest Apples should be eaten as gathered from the tree, for if stored for any length of time they lose flavour and become insipid.

For dessert in August there are several aspirants to favour, including the following: *Beauty of Bath*, *Duchess of Oldenburgh*, *Lady Sudeley*, and *Devonshire Quarrenden*. The three first varieties are handsome Apples, and are suitable for exhibition. They succeed better as bushes in the garden than as orchard trees. Devonshire Quarrenden is one of the oldest and best-known among early dessert Apples, its homely red cheeks being familiar to most country people, and its sweet and delicious flavour appreciated by all. This succeeds as a bush in the garden or as a standard in the orchard. To those only wishing to grow one August Apple I should say plant the Quarrenden. In September we have many excellent sorts to choose from, each well deserving a place in gardens of even limited extent.

Worcester Pearmain.—This variety has grown immensely in public favour during the past few years, and I think deservedly so. It is among the most handsome of early Apples, its skin

being dark red, a rich glow of colour. The flesh is white and tender, and the flavour agreeable. It is a prolific-bearing sort, and valued as a market variety.

Langley Pippin.—A comparatively new variety, raised between Cox's Orange Pippin and Mr. Gladstone. The fruit is of medium size, the ground colour of the skin being pale yellow, with a bright rosy flush on the sunny side. It has a brisk and pleasant flavour, which I think is more like that of Mr. Gladstone than Cox's Orange Pippin. The tree is moderately strong-growing, a sure cropper, and is suitable for garden or orchard.

Pineapple Russet.—This variety is a prolific bearer and a strong grower. The fruit is large, the flesh tender, the flavour delicious, and highly perfumed. It succeeds equally as well in both garden and orchard. Many other sorts could be mentioned; but for September Apples the above three are amongst the best. Selections for succeeding months will be given in future early numbers. OWEN THOMAS.

THE DENBIGH PLUM.

A COOKING VARIETY.

THIS excellent Plum, also known as Cox's Emperor, should be included in every collection. It crops well, and the fruit is of good size and colour, and if allowed to ripen thoroughly in the open it is quite acceptable for dessert. Small bush trees last season were laden with fruit, and those from a wall were first-rate. The fruit of this variety will hang well on the trees after a thorough ripening, and will be available for use for a long time. A slight root pruning at times is of great service. CHAS. JONES.

THE NEW RASPBERRY PENWILL'S CHAMPION.

It is always interesting to learn something of the origin and history of new fruits and flowers. Therefore, as we happened to be in Totnes on the

day on which an illustration of the new Raspberry, Penwill's Champion, appeared in THE GARDEN (December 10, 1904, page 403), we took the opportunity of calling on Mr. Penwill to obtain all the information that he might kindly be willing to give us about it. It was a most unexpected surprise to find a large piece of ground, bounded by ancient walls, against which some grand Magnolias were growing in most robust health. Nor was this the tithe of the garden, as its possessor pointed out when he took us to the far end and showed us what might well be, at a guess, an acre or two of good fruit-growing land. Totnes is one of the most ancient of English boroughs, and, as in many another provincial town, its builders knew better than to crowd up the houses so that no breathing space should be left for the inhabitants, and beautiful gardens may often be found belonging to houses whose frontage is on the High Street.

Penwill's Champion is not the result of hybridisation, but may rather be attributed to selection. Chance puts many a good thing in our way, but it is something other than chance which enables us to take advantage of it.

Growing apart from other Raspberries, in a quarter devoted to Black Currants, some stray bushes were observed year by year to bear not only remarkably fine fruit of bright colour, but to go on cropping for a much longer period than all the other canes in the garden. A favourable point such as this was not likely to escape the watchful eye of so good a gardener as Mr. Penwill, who lost no time in setting about increasing the stock. To make assurance doubly sure, he carefully planted a portion of these side by side with other well-accredited sorts for the sake of comparison until he was satisfied that the long cropping character was maintained. It was only last year that Mr. Penwill was persuaded to send it to the Holland House show of July 12, where the judges, while they fully admitted its worth, wanted further proof of its being the long cropper it was claimed to be.

In consequence of this Mr. Penwill sent up specimens to the new hall in Vincent Square every succeeding fortnight as long as it was in bearing, viz., on July 26, August 9, August 23, and September 6, cutting the canes at the ground line



THE DENBIGH PLUM, ALSO KNOWN AS COX'S EMPEROR. (Reduced.)

and exhibiting them as they grew, and thus deservedly gained the award of merit. He has also won certificates at Shrewsbury, Taunton Deane, and Exeter. For many years Mr. Penwill has gathered Raspberries of this particular strain, to which he has given the name of Penwill's Champion, because he contends that it will hold its own against all competitors for a period of over two months. Thus the exact dates for the last three seasons are as follows: 1902, July 4 to September 16; 1903, June 26 to October 2; 1904, July 4 to September 19.

The ordinary cropping season for Raspberries is over in about a month, therefore we may welcome the new comers as a distinct advance in the right direction. Its introducer claims for the Penwill's Champion that it equals in size and is superior in flavour to any in the market, while the canes are vigorous and long lived. The climate of Totnes, though salubrious, is not exceptionally mild for the south of England; but the soil is wonderfully rich and productive. We should certainly recommend any purchasers of this good Raspberry to plant in deep, well-prepared ground, and then we have no doubt, from what we have learnt by personal and local experience, that they will not be disappointed in their new acquisition. K. L. D.

MESSRS. ALEX. DICKSON AND SONS' ROSES.

(Continued from page 47.)

IRISH HARMONY.—This is one of those beautiful singles that Messrs. Dickson, in order that they may be easily identified as a class, have designated as "Irish," and is by no means the least beautiful of the set. For freedom of growth and profusion of flower it is, I think, one of the best of the whole series; colour in the bud saffron yellow, with a tinge of carmine on the outside of the petal, opening into a large single flower often 5 inches in diameter, of a pale yellowish white, quite distinct, and likely to prove a grand bedding Rose. A mass of bloom when I saw it in mid-July, with every promise of a continuance throughout the season. A good grower and not fleeting like some of the singles. The scent is delicious; there is undoubtedly a good deal of Tea blood in it. This Rose, when exhibited by the firm at the autumn show of the National Rose Society on September 24 last in great sheaves, was awarded a gold medal. And if the gold medal of the National Rose Society is to be given to single Roses, none have so far deserved it better than Irish Harmony.

Betty.—This is a really grand flower. Looking down the long rows of it one was struck at once that here was something, at any rate, out of the common, its parentage—well, never mind that. Its colour was rosy copper of varying shades; its form reminiscent of Killarney, only with petals of greater length. Several I measured and laid on a foot rule, and they were within a sixteenth of an inch of 4 inches. It is a good grower—better than Killarney even—never out

of flower, and as a good all-round Rose it will be hard to beat. It will be distributed in the autumn of 1905, and bids fair to be one of the most popular of Roses that Messrs. Dickson have ever sent out.

Mrs. David M'Kee.—This is a distinct Rose of a colour that we want—creamy yellow—a Hybrid Tea that is now being distributed, erect, and with the branching habit; the petals are large and round, and the flower is of good form. It is a robust grower, and has received the gold medal of the National Rose Society. All exhibitors will want this Rose.

Dr. J. Campbell Hall.—I was immensely taken with this flower, and I could not help feeling that something was wrong somewhere, that it, too, had not received that hall-mark—the gold medal. It is not easy, perhaps, to suggest any other method than that which the National Rose Society adopts in awarding its gold medals, but here was a flower a long way ahead of a good many Roses that have received that coveted distinction without it. The judges ought to see the Roses growing, of that there is no doubt; perhaps some day that will be managed. But to get back to Dr. Campbell Hall (the Rose, and not the rosarian), one needs to be an artist to describe some of the colours of Messrs. Dickson's Roses, and this one is not easy; pinkish rose, evenly marbled white, with a suspicion of cream, is as near as I can get. At any rate, the flower is beautiful in the extreme, and the plant is a good grower and of real perpetual flowering habit, a Hybrid Tea that everyone will grow when it becomes better known. Most useful for exhibition, and a fine garden Rose.

Lady Ina Bingham (H.T.).—Another of those great petalled flowers after the style of Betty, that is not yet in commerce. Colour a lovely shade of pink difficult to describe. The flower is very large, though only semi-double; foliage is massive, and of a deep green. It will be a grand garden Rose that the raisers think very highly of, and will in all probability be distributed in 1905.

Mrs. Conway Jones.—A Hybrid Tea after the style of Bessie Brown, only an improve-

ment even on that grand Rose. It is an immense flower, slightly deeper in colour, of the same vigorous habit of growth, and flowering even more profusely. Called after the wife of one of our most enthusiastic of Rose growers and exhibitors, it has come to stay, and will be found next year in many a box of Rose blooms. H. E. MOLYNEUX.

(To be continued.)

HARDY FRUITS IN SEASON.

PEAR WINTER NELIS.

THIS is a well known and luscious winter Pear. The belief has been hitherto pretty general that to grow it to perfection the assistance of a warm wall is necessary. My experience is that in warm and favourable seasons the best results are to be obtained from pyramid trees grown in the open. Growers should make a note of this fact, and hasten to plant this, certainly one of the best and most indispensable winter Pears in cultivation, in some warm corner or other of their garden. It will be well to qualify the above by saying that in cold and unfavourable seasons this variety is a disappointment in the open, and therefore a reserve of trees on a warm wall should be provided where possible. OWEN THOMAS.

THE KITCHEN GARDEN.

LESSONS FROM 1904.

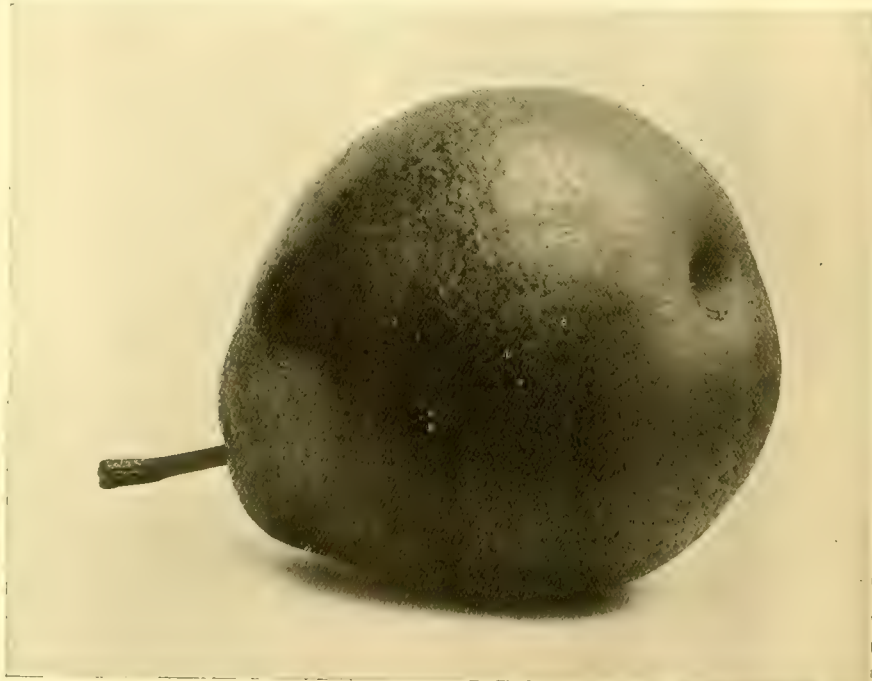
(Continued from page 45.)

VARIETIES TO CHOOSE FOR 1905.—ONIONS.

PERHAPS no vegetable has been more improved during the last thirty years than the Onion. It not only forms one of the most telling and important dishes at our exhibitions, but also is valuable in the kitchen. The practice of raising the plants under glass, whether it be for exhibition or not, is most certainly to be recommended, as by so doing an earlier growth is assured and the crop is generally proof against the Onion fly, at all events so much so that little damage is done. Ailsa Craig is one of the best for exhibition, and still maintains its position; but a very fine distinct novelty is Johnson's Giant, which proved to be our best last year. Cranston's Excelsior is fine also. Veitch's Maincrop is one of the best keepers, and very reliable. Carter's Record is probably the largest variety in existence, and of good quality. Leviathan and White Emperor are fine for autumn sowing.

LETTUCES

have been abundant and good all through the year, and where a large collection is well grown, with so many beautiful shades of colouring, these create quite a pleasing feature in the vegetable garden. We made rather an extensive trial of the most distinct sorts during the past summer; this proved to be quite a



PEAR WINTER NELIS (NATURAL SIZE).

feature, as well as instructive, but I will only mention those which I consider to be the best and most reliable. Carter's Harbinger is a valuable variety for forcing; it can be grown in boxes in an early Peach house, and is invaluable when salads are in daily request. Veitch's Perfect Gem is an excellent Cabbage variety. It matures quickly and is generally much liked. All the Year Round is still one of the best. Buttercup, a somewhat new variety which I had from Messrs. Dickson and Robinson, is a beautiful golden colour, and should be grown in all gardens; so also should Lord Kitchener, which is very large and distinct. Sutton's Marvel is a grand dark-leaved sort. Among Cos sorts Sutton's Mammoth is my favourite; it is large, distinct, and good. Brown Cos and Hicks' Hardy White are the two best I know for winter, and the old Hammersmith still remains the most hardy Cabbage variety for winter cultivation.

ENDIVE.

Not much improvement has been effected in these. A good type of the round-leaved Batavian is unsurpassed by any I know, and the old green curled adds variety to the salad bowl.

TURNIPS.

Here again we have some very fine additions during recent years. The long forcing variety of Messrs. Carter's is a great gain. By sowing the seed early on a very gentle hot-bed splendid roots can be pulled early in April; the quality is everything one could wish for, and it remains a long time fit for use. Early Milan is quick and good, but must be pulled and eaten when quite young. Snowball and Jersey Lily are grand white varieties, and Veitch's Red Globe is fine during the hot weather. The yellow varieties do not succeed so well South as in the North, where they are much prized, Dobbie's Golden Ball being very fine when seen at its best. As a winter variety we grow largely Webb's Prize-taker, a green-topped sort, but extremely hardy and of fine quality.

VEGETABLE MARROWS.

The medium-sized varieties are certainly the best, and the three I prefer are Moore's Cream, Sutton's Perfection, a fine, green fruit, and Pen-y-byd, in my opinion the best flavoured of all.

TOMATOES.

For growing under glass Cutbush's Polegate is a grand variety, and in every way represents a good Tomato. Golden Jubilee is one of the best yellows. Sutton's Earliest of All is hard to beat for outside culture, as it is very prolific and of good quality.

SPINACH.

The Carter is a great favourite here, and the finest variety for exhibition. There has been a great improvement during recent years; the long-standing varieties, both round and prickly seeded, are a great gain.

PARSNIPS.

On wet, heavy land the Parsnip crop has not been so satisfactory as in some seasons. They grew remarkably well, but the roots have been badly cankered, so much so in some localities that hardly a clean specimen could be found, and the splendid samples generally met with at our autumn exhibitions have been few and far between. Some grand new introductions of recent years have done much to stimulate the culture of this useful winter vegetable. We grow chiefly Dobbie's selected, a first-rate variety; Sutton's Tender and True, distinct and fine; and Carter's Maltese, each being handsome and of rare quality.

PARSLEY.

This has been plentiful all through the year. A well-grown bed is always a great pleasure to see, and should be grown in a prominent part of the kitchen garden. I know of no variety to compare with Dobbie's Exhibition. It is a grand selection and perfectly true. The season of 1904 stands out as the most successful during my twenty years at Aldenham.

E. BECKETT.

Aldenham House Gardens, Elstree.

GARDENING OF THE WEEK.

FLOWER GARDEN.

SOWING SWEET PEAS.—It is yet early to sow most hardy and half-hardy seeds in heat, but a few Sweet Peas for earliest blooming outdoors should be sown now in gentle heat in 4½-inch pots, sowing half a dozen seeds in each pot. By growing and hardening off gently it is probable that the weather will admit of their being planted out in permanent quarters before becoming pot-bound and stunted in growth. If no failures in germinating or loss in other ways occur, each pot will form a good clump, and, if it is desirable to set in rows, they can be planted 15 inches or 18 inches apart without disturbance.

HOLLYHOCKS in places where the disease is rampant can only be successfully grown as annuals, and the single ones especially do well as such if sown early and grown into sturdy plants fit for planting out in May. The same remarks apply to Antirrhinums and Pentstemons. Of the former, Queen of the North, Yellow Queen, and the new Coral Red are a good trio. The rose and white

COSMOS BIPINNATUS are very beautiful autumn-blooming plants with elegant foliage, but they require a long season of growth to flower freely in autumn before frosts occur, hence they should be sown in heat without delay. If through any cause

CAMPANULA PYRAMIDALIS was not sown last summer—the proper season—lose no time in doing so, for some seedlings will bloom next autumn if grown on freely; they are indispensable for the herbaceous borders, so every means should be adopted to work up a plentiful stock. They resent strong heat, even as tiny seedlings, as most hardy plants do.

BEDDING PLANTS.—Place *Salvia splendens* grandiflora and varieties, *Verbenas*, *Lobelia Erinus*, *Iresines*, *Alternantheras*, and similar plants in moist heat to produce cuttings. As a rule, cuttings taken off spring-rooted plants turn out more satisfactory during the summer than do the harder and more stunted growths of wintered stock. Should a deficiency of any bedding *Geraniums* happen, propagate the tops of autumn-struck cuttings and clean shoots from old plants. Insert in boxes, and place on shelves near the glass in a light heated house or pit.

PROTECTING PLANTS.—After the recent storms and gales examine temporary screens of evergreens, straw mats, or what not erected for the protection of tender shrubs and plants, repairing all gaps and straightening and strengthening the supports, for we have undoubtedly yet more damaging easterly winds in store. Frost having lifted some of the plants put out in beds and borders for the spring display, apply gentle but firm pressure around them and fill up blanks, adding more light mulch where necessary. In mild districts some

RHODODENDRONS—hybrids of *arboreum*, *noble-anum*, &c.—are now opening their earliest buds. If the bushes are not too large, slight protection in the way of scrim canvas or a similar light material thrown over them on frost threatening might save them from injury.

JOHN ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

FRUIT GARDEN.

POT VINES.—These require very liberal treatment after the bunches are set. Do not leave more bunches on the Vines than they can carry or the Grapes will be inferior. Thin out the berries as soon as they commence to swell, and take care not to thin the variety Black Hamburgh too much or the bunches will be loose. Add fresh material to the surface of the pots as soon as the roots appear. Liquid manure may be given to them two or three times a week, and an occasional watering with soot water will be of benefit. Damp the paths at night with liquid manure; this will help to keep red spider in check. Keep a night temperature of 65°, or even 70° in mild weather, but take full advantage of the sun during the day, admitting a little fresh air when the thermometer approaches 80°. Stop the shoots at the second joint beyond the bunch, but

allow the laterals to cover the trellis without overcrowding. See that the temperature of the plunging material does not decline below 70°.

EARLY PERMANENT VINES.—Great care must be exercised in watering. If the borders were thoroughly soaked previous to starting the house they should not require any more till the Vines have passed out of flower. Create a drier atmosphere during flowering, and regularly tap the rods at midday to disperse the pollen. Admit air on favourable occasions, but avoid cold draughts, especially if the Vines are subject to mildew. Regulate the growths so that the trellis will be properly covered with foliage.

EARLY PEACHES (POT TREES).—The fruits on trees which were started in December are now swelling. The temperature may be increased, and more moisture, both at the roots and in the atmosphere, should be given. There is always a great surplus of fruits set on pot trees, and if some of these are not removed at once they will rob the tree of much energy; at the same time leave sufficient to ensure a reasonable crop. The final thinning should be deferred till after the fruits are stoned. Pay early attention to disbudding, and do not allow the shoots to get too long before stopping, but young growths must be encouraged where it is necessary to fill up gaps, having in mind the proper formation of the tree. After the fruits are stoned stimulants should be given, and a surface-dressing of horse manure and loam in equal proportions, with a little soot added, will give the trees fresh vigour. It is important for the pots to be plunged in leaves or other suitable material to prevent the too rapid evaporation of moisture at the roots, and to keep the soil uniformly moist. Make free use of the syringe, occasionally using an insecticide to keep the trees clean.

STRAWBERRIES IN POTS.—Plants from which ripe fruit is expected early in March will be throwing up their flower-spikes; if the pots are full of roots and the drainage clear they will require plenty of water, which should be diluted with liquid manure at every alternate watering. At this period a low temperature must be avoided or the spikes will be stunted. A free circulation of air is essential when the plants are in flower, and at this early date it is necessary to go over the flowers with a camel-hair brush to assist fertilisation. When the fruits are "set" make free use of the syringe, and feed liberally till the fruits are colouring.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

INDOOR GARDEN.

ROSES.—The shoots of Roses growing on the walls and rafters of a greenhouse may be thinned, and the plants top-dressed with loam and manure. Prune pot Roses a few weeks before starting. All plants should be established at least a year in pots before being forced. Growth and flower otherwise will be very poor, drooping whenever the sun appears in the early stages of growth. Attend to the drainage, and top-dress, using a compost similar to the one for those planted out, first removing 1 inch or 2 inches of the top soil. A vinery or Peach house on the point of being started is a suitable place for them if there is no special Rose house. The pruning depends on the variety. Teas require thinning and partial shortening of the growths. Hybrid Teas should be pruned a little, while Hybrid Perpetuals need harder pruning. Give a temperature of about 50°, with a fall or rise of 5° night and day as the case may be. Syringe once or twice on bright days. Admit air freely on all favourable occasions, taking care to avoid draught, or mildew will soon make its appearance. Greenfly quickly injures the tender young shoots if not checked by fumigation or dusting with Tobacco powder.

CANNAS.—A few of these for early flowering may now be started. Pot up single crowns in large 3-inch pots, unless bulky specimens are required. Generally the flower-spikes from single crowns are much larger. Fibrous loam, leaf-soil, and sand will be sufficient for starting them. When potting on into 6-inch pots, in which they will flower, use a rich soil. Cannas being gross feeders, they require

abundance of water when growing freely. Good drainage must be given.

SEEDS FOR THE GREENHOUSE.—Now is a suitable time to sow many seeds. Use pots and pans half filled with crocks. For the majority of the following use soil composed of two-thirds loam and one-third leaf-soil, adding plenty of sand. Cover the seeds about their own depth with soil. *Streptocarpus*, *Clerodendron fallax*, *Saintpaulia ionantha*, *Grevillea robusta*, *Cordyline indivisa Veitchii*, *Smilax*, *Statice*, *Ardisia crenata*, *Asparagus*, *Angelonia*, *Primula Forbesi* and *P. obconica*, *Marguerite* and perpetual-flowering *Carnations*, *Solanum melongena*, &c. *Pinus canariensis* is very easily raised from seed, and makes a very pretty decorative plant for the cool greenhouse or as a table plant.

GENERAL REMARKS.—Start *Richardia elliottiana* in a gentle heat, using a compost of equal parts loam and leaf-soil, adding sand in proportion. *Caladiums* may also be shaken out and started in pans. If more stock is required the corms can be cut up when the growth is a few inches long. Look carefully over herbaceous *Calceolarias* for damp leaves at the base. Pot on when required. Many Ferns are looking rather unsightly just now. Give rather less water, pick off brown fronds and avoid much fire-heat preparatory to potting about the middle of next month. For early work a few *Adiantum cuneatum* should be induced to throw up young fronds before potting. Place a few *Dielytra spectabilis* and *Astilbes* (*Spiræas*) into heat.

Royal Gardens, Kew.

A. OSBORN.

KITCHEN GARDEN.

SOOT AS A MANURE.—The excellence of soot as a vegetable fertiliser is frequently lost sight of. The thought occurs that if soot were more expensive and less plentiful, its virtues would be more readily appreciated and its nutritive qualities oftener taken advantage of by vegetable cultivators. Besides stimulating young growing plants, it is the best remedy known to me for keeping in check such ravagers as slugs and snails. If our Carrot bed of last year had not received an almost daily dusting of soot I have grave doubts if one Carrot would have survived. An adjacent bed of Rhubarb provided an agreeable harbourage for slimy pests. From this hiding-place they issued in hundreds, making straight tracks for the young Carrots, until they were effectually brought to bay by their enemy the soot. It may be argued that soot is awkward to handle, but this difficulty can be considerably lessened by applying it in calm and showery weather. From soot a valuable liquid manure can also be obtained by filling an old artificial manure bag of open texture, and plunging it in a barrel or tank of soft water. A ready supply will thus always be at hand, but before applying the liquid it must be ascertained that the soil is in a moist condition. Soot may be very beneficially used for potting purposes; a little added to the soil, say, a 9-inch potful to a barrow load of soil, will produce vigorous plants and deep-green leaves. A sprinkling of soot ought to be mixed with dry soil and laid in the bottom of drills prepared for Peas and Beans, both of which must be sown on the first favourable opportunity. Choose a border with a southern exposure. Sow Peas in lines about 4 feet apart, making the drills about 3 inches deep. Sow rather thickly at this season, cover lightly with dry soil, and finish by drawing in the furrows. Beans should be planted in rows 3 feet apart, allowing 4 inches to 6 inches from seed to seed.

JERUSALEM ARTICHOKEs.—Although these are sometimes grown year after year in the same place without showing signs of deterioration I consider it advisable to give them a change of ground. If the weather is suitable they should now be lifted and graded, selecting those of a suitable size for seed, the larger tubers to be placed in a heap in some convenient spot for supplying the kitchen, and covered with soil to keep them plump and fresh. The smaller tubers may be planted when the ground is being dug. Make the rows 3 feet apart, and leave from 15 inches to 18 inches between the seeds.

MUSHROOMS.—Collect a quantity of fresh horse manure that has not been exposed to wet, and clear it of long straws. Then chop up some fresh turf into pieces about 3 inches square, using only the fibrous part. Mix well with the manure, and turn every two or three days until the rank heat has gone. This will take about eight days, when it will be ready to form the bed in the Mushroom house. This is made by placing a layer about 3 inches thick of the prepared mixture. Beat firm with a mallet or brick, add more layers in the same manner until a depth of 12 inches to 15 inches has been obtained. When the temperature of the bed has subsided to 87° Fahr., take good fresh spawn, break up into pieces the size of a hen's egg and insert immediately below the surface, keeping the pieces about 9 inches apart. Cover with the mould left over from the chopped turf used in the preparation of the Mushroom bed. Finally beat firmly and cover with a layer of straw. JAMES JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

ORCHIDS.

THE GRACEFUL SPRING-FLOWERING PLATYCLINIS (*Dendrochilum*) *glumacea* is now commencing to push up its new rosy-coloured growths. Its variety *pallida*, which has pale green shoots, is also starting to grow. Both plants should be suspended near the roof glass. The proper time to repot these plants is either immediately they commence to grow or within a short time after flowering. They will root freely in a compost of good fibrous peat, leaf-soil, and chopped sphagnum moss in equal proportions, adding a moderate quantity of broken crocks and coarse silver sand. All should be well mixed together. As the growths push up and the new roots that quickly follow enter the soil the supply of water must be gradually increased. On bright days syringe the under sides of the leaves to keep down red spider, to which all *Platyclinis* are subject. The pretty *P. uncatia* is now in bloom, and, being suspended from the roof, is very attractive; its graceful thread-like racemes are



GRAPE MADRESFIELD COURT.

very similar in character to the well-known *P. filiformis*, but the flowers are of a greener shade and individually larger. After the flowers have faded the plant may be repotted, if necessary, and be kept fairly moist at the root until growth is complete. At the present time plants of *P. filiformis* and *P. cobbiana* are at rest, but they should not be allowed to become too dry, as the tender leaves are apt to turn yellow and fall off. This may be averted by syringing them overhead every morning with tepid rain water. The *Platyclinis* are usually placed in the East Indian house to make their growth, but I find the plants keep in better health if allowed to remain in the intermediate house the whole year round.

CYPRIPEDIUM INSIGNE is a plant long introduced into our gardens, and has always been a general favourite among gardeners owing to its vigorous constitution and easy culture. As the handsome flowers appear freely during the winter season, and last a long time in good condition, they are especially valuable for cutting and decorative purposes.

As seen by the remarkable exhibit of Mr. G. F. Moore at the new Horticultural Hall on November 15 last, there are many *C. insigne* varieties now known, some of them better than others, and the best certainly deserve a place in the most select collections. In *C. insigne* Sanderæ and *C. i. Harefield* Hall varieties we have undoubtedly two of the best. *C. insigne* and its varieties may be repotted or divided as may be necessary as fast as they pass out of flower. Plants that have become pot-bound and strong healthy specimens may be placed in pots 2 inches more in diameter than those they are now growing in.

CYPRIPEDIUMs do not require so much drainage as many other Orchids; about one-third the depth of the pot will be sufficient. Place a thin layer of rough moss over the crocks, so as to prevent the small particles of compost being washed down among the drainage. When repotting keep the collar of the plants just below the level of the pot rim. The compost should consist of coarse fibrous peat, fibrous loam, and sphagnum moss in equal parts, adding some broken crocks to keep it porous. After repotting afford water with discretion until the plants become well rooted. When in full growth *C. insigne* and its numerous varieties require copious supplies of moisture at the root, and they should never be allowed to become dry. Like many other Orchids which have no pseudo-bulbs, they have no definite season of rest. A cool, shady part of the intermediate house is the best place for them. Where such accommodation is not at hand the ordinary greenhouse where frost is excluded will suit them, proper attention being afforded in the matter of watering, shade, &c.

Burford, Dorking.

W. H. WHITE.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

ORCHIDS AND CACTI.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I enclose you a photograph of *Odontoglossum grande*. It was one of four that I purchased for a few shillings twelve months ago. It has been grown in a very low temperature, with the top light open night and day, so is fairly hardy. It is grown in peat, loam, and sphagnum moss, with plenty of drainage, and, as it carries eighteen blooms, I am very pleased with my first success. I also enclose you a photograph of my house, showing the various plants grown together, Orchids and Cacti. I may state I never let the temperature rise above 50° during the winter months, and have Orchids in bloom in each month of the year, and the plants grow well and strong together.

Manor Park, E.

JOHN HIRON.

[Unfortunately the photographs were not suitable for reproduction.—Ed.]

GRAPE MADRESFIELD COURT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The bunches of Grapes illustrated are from young Vines inarched upon White Lady Downe's, and were remarkable for colour and size, both of bunch and berry; the berries also did not split. Whether the grafting was responsible or not, I am not prepared to say (for the vexed question of the effect of stock upon scion needs a good deal of threshing out), but certainly the bunches under notice were greatly superior to others of the same variety and in the same vinery, which were growing upon their own roots. The weight of three bunches was about 14lb.

F. J. SAGE.

The Gardens, Bifrons Park, Canterbury.

[We should like to have an opinion from correspondents who have grown White Lady Downe's Grape. We have rarely heard of it before.—Ed.]

CHRYSANTHEMUMS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am sending you a photograph of our Chrysanthemums here. As you will see, the stage

is about 2 feet 6 inches from the ground, and the hot-water pipes are just underneath it, so the only way we can arrange our Chrysanthemums is to tie them down to form a bank. Some of the plants were 7 feet high this year; we have to tie them down to cover the pots, and then incline them towards the glass at the back which would be about 2 feet 6 inches from the stage. The plant stems are apt to break, but anyone having a stage like ours will be well repaid by following this method. We have about 100 pots, and generally put two plants in a 16-inch and two or three in 12-inch pots in case one should break.

W. C. SMITH.

The Gardens, Ecton Hall, Northampton.

THE WINTER MOTH.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your correspondent, "A. de L. L.," in her note about the "Winter Moth" (*Cheimatobia brumata*) in THE GARDEN of the 7th inst., page 21, has not got her story right, as she has apparently mixed up the life history of two very different moths. The caterpillars of the winter moth attack the buds, leaves, and at times quite young fruit, but it is the caterpillar of the Codlin moth (*Carpocapsa pomonella*) that infests the Apples and causes them to be what is commonly called "worm eaten." The greasy bands are not of much use as a preventive in the case of an attack by the Codlin moth, as the females are winged and can fly just as well as the males, but it is useful to tie hay-bands twisted twice round the stems so tightly that no insect can crawl under them, for the caterpillars of this moth, when they leave the fruit, climb up the stems until they find a suitable shelter in some inequality in the bark, &c., in which they can become chrysalides, and the hay-bands provide them with a very convenient resting-place. Almost better than the hay-bands is a strip of sacking or canvas about 8 inches wide, folded in half, and then again so as to form a band of four thicknesses; it should be tied or wired tightly round the tree with the doubly folded edge uppermost, about 3 feet from the ground. These traps should be placed in position early in June and not removed while there is any fruit on the trees. They should be examined every week, and any insects sheltering in them destroyed. "A. de L. L." pays a well-deserved tribute to the work done by Miss Ormerod, but it was a pity she did not pay her the compliment of reading her books more carefully before she wrote her letter. G. S. S.

SOME CRITICISMS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—As a constant reader and student of THE GARDEN, it occurs from time to time that I am somewhat puzzled by what I read, due occasionally to what appear to me to be ambiguous expressions, or because the matter clashes in my mind with preconceived ideas derived from other sources. This being so, it has occurred to me that other readers may be similarly situated, and that an occasional criticism may lead to welcome elucidations.

Flowers of Mystery (page 21, January 14).—Delighted as I was with this charmingly-written note, I feel compelled to challenge the allusion to "treacherous snow—hiding black deceit beneath its whiteness and death within its seeming purity—flowers lulled to wakeless sleep." Is this really fair? I have always understood that exactly the contrary was the case—that is, that the snowy mantle was beneficent rather than destructive, protecting the delicate plants beneath it from the rigours of wintry blast and from destructive frost. If it were otherwise, how can we account for the wondrous beauty of the alpine flora and its known vigour of growth and inflorescence so soon as the wintry mantle disappears? The "wakeless sleep" is surely a misplaced term in such circumstances, and the epithet "treacherous" somewhat of a calumny.

Coloured Primroses (page 22).—Here I am puzzled about the origin of the blue Primrose. In the first place, its birth was witnessed by your correspondent at Wisley, and it was subsequently christened

Scott Wilson; but he then proceeds to say that "it took many years of patient selection to bring Oakwood Blue to life, this being the parent of the present race of blue Primroses." Surely, even if Oakwood Blue descended from Scott Wilson—as I assume is implied—the latter would be more fittingly designated the parent of the race. It would also be very interesting to know what sort of a blue was Scott Wilson, and whether it originated, as its discovery "on a hillside under the shelter of a Furze bush" appears to imply, as a wild sport of the common yellow Primrose.

Wrong Ways of Showing Carnations.—Here I have no criticism to make, but hearty thanks to give for such an attack upon a ridiculous custom. In my humble opinion any flower which is exhibited other than in its natural form should be disqualified from any recognition. If a flower



A NOVEL WAY OF ARRANGING CHRYSANTHEMUMS.

(The plants are tied down so as to form a bank of flowers.)

cannot perfect itself naturally in those points which constitute merit, it is not worth growing, and the selective cultivator should refrain from bringing it forward until he has managed to cure its defects. The weak point of most up-to-date Carnations is the bursting of the calyx, and a mode of exhibiting which permits this great fault to be hidden is absurd and nothing less.

Vitality of Seeds (page xiii).—I thought the mummy Wheat question was long since exploded, and now in the *Irish Times* mummy Beans crop up circumstantially as having sprouted and grown into plants after 1,000 years' burial, which period applied to apparently Oriental mummies is unusually moderate. Can any reliable botanist confirm this, and if not, should not an editorial query be attached to data of this extra-horticultural Press kind?

Fashion in Gardening (page xiii).—I wonder what Mr. Hudson of Gunnersbury thinks of the idea expressed in the above note, that nobody should attempt to make a Japanese garden unless he has lived in Japan and (mark this) acquired the language, and, furthermore, studied the Japanese mental attitude, traditional love, and so on. Has Mr. Elwood ever been to Gunnersbury, and does Mr. Hudson speak Japanese? I imagine not, and yet I fancy I am not alone in thinking the Japanese garden there a wonderful picture, or rather a series of pictures.

Striped and other Auriculas (page 21).—I close this chapter of carpings and queries with a word of admiration for Mr. R. Dean's advocacy of a more liberal taste in these charming flowers. I and my fellow ignorami can detect little or no advancement in the annual exhibits, and this is

undoubtedly due to the constant suppression of "sports," which are outside the pale as it were, but which, as in the case of striped, fringed, and double types might very possibly be worked up selectively and largely relieve the monotony now so prevalent. IGNORAMUS.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

NAMES OF PLANTS.—*Ino*.—*Panicum plicatum*.—*G. E. Webb*.—*Danæa Laurus* (Alexandrian Laurel).

NAMES OF FRUITS.—*A. Dimsdale*.—1, Lady's Finger of Lancaster; 2 and 3, Red Hawthornden (Yorkshire Beauty).—*S. G. R.*—Pear Easter Beurré.

BREAKING UP OLD PASTURE FOR POTATOES (*C. J. G. G.*).—The land should be bastard-trenched to as great a depth as possible, the turf being buried beneath the top spit. Do not use any rank manure at all, but only that which has been thoroughly rotted down and sweetened. If you plant in drills you can scatter in some wood ashes and soot, covering with a little soil, and then putting in the sets. These should be sprouted before planting, either one or two buds being retained and the remainder removed. For this purpose shallow boxes and a light, frost-proof place are essential. The ideal size of set is one weighing 3oz., and they should be 18 inches apart in the rows, and 30 inches from row to row. Duke of York and Sir John Llewelyn are both excellent varieties in soils which suit them, as also is May Queen. You give no indication of your district, but you will be wise to procure seed from a distance. Before the first earthing a dressing of nitrate of soda, 2oz. to a dozen yards' run of row, or sulphate of ammonia, 3oz. over the same extent, put on the soil—not on the plants—will do much good.

TWELVE APPLES FOR PYRAMIDS (*C. J. G. G.*).—You ought to have supplied some definite information as to your place of residence, aspect of the garden, and depth and character of the soil, as all these points prove of material assistance in formulating intelligent replies. Presumably you desire to cover as long a season as possible, in which case you will find the following a good selection. It should be noted that in some districts and soils certain varieties of Apples canker much more freely than others, notably Keswick Codlin and Wellington (Dumelow's Seedling), and a little time in neighbouring gardens will be advantageously spent in ascertaining these things. Here are the names, not precisely in their order of ripening: Keswick Codlin, or Lord Suffield if the former cankers; The Queen, Stirling Castle, Ecklinville, Lord Grosvenor, Bismarck, Royal Jubilee, Lord Derby, Warner's King, Bramley's Seedling, Newton Wonder, and Wellington. It is assumed that you will procure trees on the broad-leaved English Paradise stock, and that you understand at least the rudiments of planting, pruning, and general management. If not, you must read THE GARDEN most carefully.

EARLY MELONS (*Granta*).—The middle of January is a good time to sow the first batch of Melon seeds, there being very little advantage in sowing, as some do, at Christmas. A light house, plenty of heat, both top and bottom, and a fairly rich loam—not sifted, but rubbed down with the hand, and all stones removed—is the best for

growing the seedlings in. The soil should be warmed for a night previous to sowing, and the pots filled to within a quarter of an inch of their rims, as Melon plants, unlike Cucumbers, are ripened by earthing up the stems. Two seeds should be inserted in each pot, and when germinated the weakest drawn out. This is much better than sowing many seeds in a pot or pan and afterwards potting off. If the soil be fairly moist, no water will be necessary until the seedlings appear, when the pots should be arranged on a shelf near the glass, except in cold stormy weather, when they may with advantage occupy a lower position in the house. A bottom-heat of 90° and a minimum top-heat of 70° is best for the plants. For early work no variety surpasses the well-known Hero of Lockinge.

ROSES IN EXPOSED SITUATIONS (Mrs. Heaton).—In many situations which are fully open to east winds and cutting blasts during April and the beginning of May it is next to impossible to grow Roses as standards. All first growths invariably get crippled, aphid appears in great numbers, and no blooms worth naming are forthcoming till secondary growths produce them in July. In such cases it is well to plant dwarfs, either on their own roots or worked on the Manetti, and to leave sufficient space all over the beds or borders to allow of a free distribution of roots of the common double *Daffodil*. These should be planted in clumps, and the pruning of the Roses deferred till the end of March. The growths should then be cut hard back to the almost dormant eyes. In the meantime the *Daffodils* will be making vigorous growth, and will afford a grateful shelter to the Rose shoots by the time they are 1 inch long and onward till genial weather prevails.

MAKING FRUIT AND KITCHEN GARDEN (H. P. M.).—It is somewhat difficult to give you satisfactory advice, for so much depends on circumstances and surroundings; the more so as you have no trained practical man to do the work. As the land you wish to make into a garden was formerly a kitchen garden, no doubt the soil is good. The turf should be taken off if you require it for potting purposes or planting fruit trees and things of this sort; if not, then it should be dug into the land. Trenching 2 feet is the best thing to do with the land before planting anything—turning the top spit under. No doubt the soil underneath is good enough to bring to the top. If the land is poor then it would be wise to add manure, mixing it with the bottom spit of soil. When the trees are planted mulch them with rotten manure; this would be better than working manure into the soil to come in contact with the roots. In a general way fresh trenched land is good enough for growing vegetables the first season. You may plant hedges of any kind until the end of March and even later, providing you are prepared to give every attention to watering during the summer, but the earlier they can be planted the better. Evergreens and Holly may be planted until the middle of May. We should advise you to plant your fruit trees in a portion of ground to themselves, as you need the garden for vegetables and flower growing. In this way the roots of the fruit trees do not get cut off or driven into the cold sub-soil. The land may be kept clean, and manure placed as a top-dressing when it is needed as growth advances. Apples, Pears, Plums, &c., may be planted wide enough apart to allow for one or more rows of bush fruit between them, and Strawberries may be grown among them for the first three years. The Holly hedges that are too high, if in good health, may be cut down to any height you may wish in March or early in April. It would not be advisable to plant fruit trees near a hedge of any kind; the roots of the hedge trees would get among the fruit tree roots and rob them of nourishment. Plant nothing but the very best sorts of fruit, and, if you can find out any really good ones that are a success in gardens near you, include them; this especially applies to Pears and Strawberries, as these are much influenced by soil and climate. Many early and late crops may be had from the southern slope if not too dry, such as Strawberries,

salad, Potatoes, &c. You should have this work pushed forward without delay, or the season will be over for planting fruit trees. It would be wise to let some of it wait till next autumn rather than do it unsatisfactorily now. Write again if we can help you further.

LIMING GARDEN SOIL (E. C. A.).—As yours is a light soil on clay we hope that you buried your manure deep to encourage roots to go down in search of food in hot dry weather. If you can another year trench 2 feet deep, without bringing up the clay, and put a good dressing of manure below the top spit, you will do wonders towards making your garden productive. As to liming the ground, light soils want little as a rule. But you may apply at once half a bushel per rod. Put down the lime fresh from the kiln in heaps of one bushel to each two rods of ground, and just cover each heap with soil. In a week or ten days it will have slaked. Then spread it about quite evenly and fork it in. Clay soils, as a rule, most need lime dressing. Of tree or perpetual Carnations, Winter Cheer (scarlet), Mme. T. Franco (pink), Uriah Pike (crimson), and Deutche Brant (white), are usually good growers. So small a greenhouse will not enable you to grow many plants, but the temperature mentioned will do. You can grow in winter Chinese Primroses, Cyclamen, Roman Hyacinths, and Deutzias, and in the summer any tender flowering plants.

PLANTING ROSES, CLEMATIS, &c. (E. Bertram).—We are handicapped in advising, as you give no idea whatever of the size of your garden. It is very questionable if *Rhododendrons* would succeed in the position you name, as from the diagram it appears too much shaded. The soil also is not favourable to *Rhododendrons*; to give them a good chance the soil must be taken out to a depth of 3 feet, some brick rubble put in the bottom, and the hole filled up with a mixture containing a good proportion of peat, with, if possible, some rough sand. It appears also too much shaded for the *Wistaria* to flower well, though it would grow freely enough. The back of the house seems to us the best position for the *Wistaria*, in which case a good climbing plant for the front would be the Fire Thorn (*Crataegus Pyracantha*), whose scarlet berries form such a notable feature in autumn and winter. You should have no difficulty with *Roses* and *Clematis*—that is if the ground is well dug, and, if necessary, some thoroughly decayed manure incorporated with it. If of a stiff nature wood ashes are particularly beneficial, serving to lighten it and make it more workable. The following hardy shrubs with approximate height and season of flowering would be likely to do well in your soil and aspect: *Berberis Aquifolium*, 4 feet, yellow, April; *Berberis Darwini*, 6 feet, orange yellow, May. Both these are evergreen, while the following good flowering subjects are deciduous: *Amelanchier vulgaris*, 8 feet to 10 feet, white, April; *Cydonia japonica* (Japan Quince), in variety, 4 feet as a bush, twice that on a wall, red to white, early spring; *Daphne Mezereum*, 4 feet, red, February; *Deutzia scabra flore pleno*, 6 feet, white, midsummer; *Hibiscus syriacus*, 4 feet to 6 feet, different colours, August; *Hydrangea paniculata grandiflora*, 3 feet to 4 feet, creamy white, August and September; *Kerria japonica* fl. - p., 6 feet, yellow, summer; *Magnolia stellata*, 2 feet, white, March; *Philadelphus* (Mock Orange) of sorts, from 3 feet to 10 feet, white, June and early July; *Ribes sanguineum* (Flowering Currant), 4 feet, colours various, April and May; *Spiraea Anthony Waterer*, 2 feet, crimson, summer; *Spiraea arguta*, 4 feet, white, end of April; *Spiraea callosa*, 6 feet, red, summer; *Symphoricarpos racemosus* (Snowberry), 4 feet to 6 feet, white berries, autumn and winter; *Syringa* (Lilac) in variety; *Weigela* of sorts, three of the best being *Abel Carrière*, rose; *candida*, white; and *Eva Rathke*, carmine-red, 6 feet to 8 feet, May. Of climbing plants, besides the *Clematis* and *Wistaria* named by you there are *Cotoneaster microphylla*, red berries in winter; *Jasmines*, *Honeysuckles*, *Forsythia suspensa*, with yellow flowers in early spring; and, of course,

innumerable *Ivies*. Though the above shrubs are selected for their flowering qualities, there are others whose ornamental leaves are their claim to recognition. The following are evergreen: *Aucubas* in variety, *Box*, *Elaeagnus* in variety, *Euonymus* of sorts, *Holly* in variety, *Japanese Privet*, and others. Herbaceous plants innumerable are available for your purpose. Special mention may be made of *Anemones*, *Asters* (*Michaelmas Daisies*), *Cheiranthus* (Wallflowers), early-flowering *Chrysanthemums*, *Delphiniums* of sorts, *Doronicum austriacum*, *Gaillardias* of sorts, *Heleniums* in variety, *Helianthus*, a few good sorts; *Hollyhocks*, *Megaseas*, *Monarda didyma*, *Enotheras* (*Evening Primrose*), *Poppies*, *Phlox* in variety, *Primulas*, *Rudbeckias* of sorts, *Solidago* (Golden Rod), *Tritomas* (Red-hot Poker Plants), *Trollius* (Globe Flower), *Paeonies* in variety, *Iris* of sorts, particularly what is known as German *Iris*; and *Pyrethrums*. All of the above should be planted as soon as possible, providing the weather is open and suitable for the purpose.

BORONIA MEGASTIGMA (Greenwood Pim).—Like most of the plants to which it belongs, known popularly as hard-wooded, or New Holland, plants, this *Boronia* is not very easy to strike from cuttings, while, on the other hand, it is by no means one of the most difficult. The best time of year for the operation is in April or May, the young growing shoots being selected for the purpose. They should be taken off with a sharp knife just below a joint, and when the bottom leaves are removed are then ready for insertion. A length of about 2 inches is a very suitable one for the cuttings, which should be selected from good sturdy shoots of medium vigour, the very strong, and also the weak ones, being rejected for this purpose. As it will be necessary to cover the cuttings with a bell-glass the pots or pans prepared for their reception should be of a size to fit the bell-glass, or glasse, that are available. The pots should be quite clean, and drained with broken crocks to within 2 inches of the rim, the top layer of the crocks being very small in order to prevent any of the fine soil passing through. Peat passed through a sieve with a 1-inch mesh, and clean silver sand in equal proportions, form a suitable compost. It must be pressed down very firmly, and in inserting the cuttings take especial care that the soil is quite close around them. When a pot is finished give a good watering through a fine rose in order to settle everything in its place, and, after being allowed half an hour or so to drain, cover with the bell-glass and place, if possible, in a structure just a little warmer than that of a greenhouse in which the plants have grown. If this is not available stand them in the warmest part of the greenhouse, as far as possible away from direct draughts, and of course they must be kept well shaded. The principal attention needed will be to water when required, and the occasional removal of the bell-glass to wipe off any condensed moisture, or to pick off the least signs of decay. As a rule they will root in about a couple of months, and when this takes place, which may be known by the shoots commencing to grow, the bell-glass should be gradually removed, and the freshly-struck cuttings inured to the ordinary atmosphere of the greenhouse. In potting off the cuttings peat, with a liberal admixture of silver sand, should be used. The young plants will need stopping occasionally to induce a bushy habit of growth. Seeds are sometimes obtainable, and when such is the case they afford a ready means of increase; but in nurseries cuttings are preferred, as they flower well in a smaller state than seedlings.

CLOVER (A. W. Foster).—We have sent you word where to obtain the *Valerian*. The common *Clover* (*Trifolium pratense*) is not cultivated for its cut flowers. There are, however, two or three ornamental species grown in gardens. *T. pannonicum*, with heads of creamy white flowers, and *T. rubens*, with dense heads of showy carmine flowers. *Scabiosa caucasica* is a wild species from the Caucasus, and has not been developed from the common *Scabiosa*. It is doubtful if *Clover* would reward one's efforts to improve it.

SHRUBS WITH COLOURED WOOD (*E. W. C.*).—The red-stemmed Dogwood (*Cornus alba*) would do well under the conditions you name, and form a welcome bit of colouring during the winter months. There is a variety of this Dogwood generally known in gardens as *Cornus alba*, in which the bark is of a yellow or greenish yellow colour, but as yet it is little known, and compared with the red-stemmed form decidedly expensive. It would certainly be worth your while to try the Golden Willow (*Salix vitellina*), cutting it down each year and thus keeping it to bush form. In soil of even moderate moisture it will do well, and under such conditions the yellow of the bark is of a richer hue than if it is growing very strongly. That Himalayan member of the Bramble family (*Rubus biflorus*) is another very showy subject for the winter, the stems being so thickly clothed with a kind of glaucous bloom as to render them of a clear bluish white, which causes a clump of this Bramble to stand out quite ghost-like in the twilight, or in the half light of a dark winter's day. This reaches a height of 10 feet or even more. It is the young stems which are most effective, and they should be encouraged by cutting away the old ones when they have played their part.

HEATING SMALL GREENHOUSE (*J. R. B.*).—Yours is quite a small attached conservatory, 8 feet by 7 feet, and it should not be at all difficult to heat it by the aid of a small gas or oil stove to which a couple of stout zinc or thin iron hot-water pipes are attached; but we strongly advise that, however fixed, the furnace portion shall not be inside the house, as combustion consumes pure air and fouls the house with carbonic acid gas. There are many descriptions of heating apparatus suitable for small houses, and examples can generally be seen at ironmongers' or greenhouse-builders'. Besides those named in your note there are the Loughborough, Horseshoe, Independent, slow combustion, and

others, all more or less useful if properly fixed. The amount of flame of either gas or oil used largely governs the heating force. Each apparatus should have a small cistern or feeder attached to supply water. We cannot recommend one apparatus as better than another when all are good. Get "Greenhouse and Window Plants," price 1s. (Macmillan and Co., London), or "Greenhouse Management," price 1s. 21. (Cassell and Co., La Belle Sauvage, Ludgate Hill, London).

SLUGS AND ANTS IN A GARDEN (*Egremont*).—Applying lime and soot freely in the autumn, after the ground is turned up roughly, makes it objectionable to slugs; but, of course, it is too late to do that now. Salt will kill them, but in any quantity it would do harm to the plants. If you could sprinkle salt upon the ground near the hedge in the evening, when the slugs come out to feed, you would probably soon check their incursions and also considerably reduce their numbers. Salt kills them almost immediately. Next autumn you might apply gas-lime, after it has been exposed for a few days; break it up as finely as possible, and apply it as a top-dressing, digging it in. This will clear the soil for some years, and it is cheap. We have destroyed ants in greenhouses by pouring boiling water on them; but this would hardly be practicable out of doors. They dislike Keating's Powder, so you might sprinkle some of this about their haunts. You should try some of the special remedies advertised in *THE GARDEN*.

A USEFUL WINTER BEGONIA (*Gladys Berry*).—Begonia Gloire de Lorraine is a beautiful winter-flowering Begonia, and valuable not only for its freedom and refined colour, but also for the length of time it remains in beauty. As suggested by the name, it is a French-raised hybrid between *B. socotrana* and *B. Dregei*. It has been in bloom for fully three months, and appears likely to continue many weeks more. It is interesting to know that M. Lemoine effected the cross in January, 1891, and plants flowered freely in the following November. The flowers are produced in free clusters, so to say, and are rich rose in colour, deepening at the margin, the centre yellow. The leaves are of neat shape, light in colour, and very much like those of *B. weltoniensis*.

CROCUSES (*M.*).—These must be planted in autumn, and in masses if you wish for beautiful effects. Our illustration will help you.

SEAWEED AS MANURE (*H. Hyatt*).—Seaweed has long been used as a top-dressing for Asparagus, Seakale, and other crops, but many who live where it is easily procured do not appear to realise how valuable it is. During the intense drought that prevailed last summer many cottagers who had dressed their allotments with seaweed found their crops green and luxuriant, while on the next allotments, where no seaweed had been used, the crops were drooping and dying. The general opinion amongst those who have used seaweed for Potatoes, Carrots, and other root crops is that wireworms and grubs

are far less troublesome. Flowers of many kinds luxuriate splendidly when the soil is dressed with seaweed.

ROSES FOR SCOTLAND (*Highlander*).—Have you tried any of the Ayrshire Roses and their hybrids? They are ramblers, they grow rapidly, and often will thrive in situations where others will not; either for covering your banks or for training up pillars we think you could hardly do better than try some of these. Good sorts are Bennett's Seedling and Dundee Rambler, both white and semi-double. The Scotch Roses (*R. spinosissima*) flower freely early in the season, so that it would be worth while to try some of these. The flowers are double, and they may be had in various colours—different shades of yellow and red. Either for a hedge or a bank the Scotch Rose is suitable. Have you tried Crimson Rambler as a pillar Rose? It grows vigorously and flowers freely, so probably would thrive well with you. The sorts you have selected appear not to be sufficiently vigorous, for unless you get a strong growth on your plants you cannot expect them to flower well. The common China, which is a very free flowering sort, with bright pink flowers, would probably suit you. We think if you were to try some of the most vigorous of the Hybrid Perpetuals and Hybrid Teas you would be more successful than you have been. Of Hybrid Perpetuals you might try Charles Lefebvre, crimson; Comtesse de Ludre, carmine; Tom Wood, cherry red; Suzanne Marie Rhodocanachi, rosy cerise; Victor Verdier, rosy carmine; Spenser, pink and white; Pride of Waltham, flesh colour; Mrs. John Laing, soft pink; Marchioness of Londonderry, white; Etienne Levet, carmine; Dupuy Jamain, cerise; Duke of Edinburgh, scarlet crimson; and Crown Prince, purple-crimson. Among Teas and Hybrid Teas you should plant Grös an Teplitz, crimson-scarlet; Grace Darling, cream and pink; Caroline Testout, bright rose; Corallina, coral red; Antoine Rivoire, rosy flesh; La France, pale rose; Belle Lyonnaise, pale yellow; and Reine Marie Henriette, red.

PRIVET DISEASED (*G. S., Manor Park*).—Your Privet is apparently attacked by one of the leaf-burrowing flies, which deposit their eggs in the leaf, and when hatched out the little grubs burrow between the skins of the leaves, feeding as they go on. One of this class is very destructive to Marguerites. The flies themselves are so tiny that they are rarely caught, and from the sheltered position of the grubs insecticides of any kind are useless. The only way is to watch the plants, pick off any leaves directly they are seen to be attacked, and burn them. The Privet which seems to be the source of your trouble had better be cut down at once and burnt. This hot-bed of the pest being removed, you will probably, by close attention, be able to keep your *Cornus* free from disfigurement.

WHEN TO DIG HEAVY SOILS (*E. S. Edmunds*).—Gardeners who have a heavy soil find it more difficult to select favourable opportunities for digging than those who have sandy soils to deal with. Especially is this noticeable in a season like the present. The moisture from light land drains away quickly, and after a couple of dry days the digging may be proceeded with. But not so on heavy land, as at this period of the year a week or two is needed to bring it into condition for working, and very likely several weeks have to elapse before such an opportunity occurs. It seems good advice to recommend the digging of all heavy land in the autumn, so that the winter's frosts and snow can act upon it. Unfortunately, there are heavy soils that cannot be so dealt with even during the most favourable periods for autumn digging. The best period we have found to operate on such heavy soils is to wait until February is in, and then if a dry period occurs commence digging in earnest. Turn the soil up roughly with digging forks—not spades upon any consideration—and the frosts and drying winds will act upon it; and by the time it is wanted for spring cropping it will work very freely. The result will be a good depth of pulverised soil, which may quickly be prepared for cropping.



CROCUSES PLANTED FOR BEAUTIFUL EFFECT.

THE BEST IVY (*Fredenberg*).—The best Ivy for clothing the ground under trees is what is known as the Irish Ivy (*Hedera Helix canariensis*); it is a quick grower, with handsome dark green leaves. In England we do not hear complaints of deer or squirrels eating the leaves of Ivy, but deer will eat more or less freely of most shrubs.

PLUM OR PEAR FOR A GABLE END (*C. J. G. G.*).—You would find that, if the soil is suitable, either a Peach or a Nectarine would flourish splendidly in such a good position. However, you say Plum or Pear, but you do not add whether you prefer early or late. Two excellent Plums are Jefferson's and Coe's Golden Drop, the former coming in early in September, and the latter after the middle of October; or you could have one of the Transparent Gages, whose flavour is superb. If you decide upon a Pear, and wish for handsomeness of appearance and size, plant Pitmaston Duchess. If you wish for superiority of flavour with good appearance, choose from Doyenné du Comice, Marie Louise, or Louise Bonne de Jersey.

VARIOUS QUESTIONS (*Beginner*).—(1) On the west wall plant climbing Roses Belle Lyonnaise, Reine Marie Henriette, Longworth Rambler, W. A. Richardson, and Clematis montana. The Clematis will fill up the top of the high wall and hang about gracefully. (2) Climbers for north side of house, Ampelopsis Veitchi, Jasminum nudiflorum, and Ivy Emerald Green. (3) Climbers for wall 6 feet high, draughty position, Forsythia suspensa, Fire Thorn (Pyracantha), and Berberis stenophylla. (4) Prunus Pissardi, Spiraea arifolia, Berberis stenophylla, Weigela arborea grandiflora, Viburnum Lantana, and Venetian Sumach. (5) Hardy annuals—Godetias in variety, Nemophilas in variety, Shirley Poppies, Sweet Peas, Nasturtiums, Mignonette, Sweet Sultan, Clarkias in variety, Virginia Stock, Chrysanthemums various, Larkspurs, and Love-in-a-Mist. Perennials—Erigeron speciosus, Gypsophila paniculata, Statice incana, Chrysanthemum maximum, Coreopsis grandiflora, Scabiosa caucasica, Delphinium Cambridge Blue, Doronicum Harpur Crewe, Starworts in variety, Achillea The Pearl, Geum coccineum plenum, Helianthus multiflorus, Lupinus arboreus, herbaceous Phloxes in variety, Pyrethrums in variety, Carnations, Pinks, &c. (6) Broad-leaved Weeping Elm. (7) Scarlet Thorn, Scotch Laburnum, double-blossomed Cherry, and red Horse Chestnut.

CHRYSANTHEMUMS JEAN DELAUX AND LEOCADIE GENTILS (*F. W. H.*).—A few years ago most of the Chrysanthemum specialists catalogued that fine old deep crimson Japanese variety Jean Delaux. We remember the time when it was very popular; when well grown it was a flower of high quality. None of the specialists appear to grow it now, but we have asked an enthusiast, whom we think can help you, to communicate with you direct if you will send us your address. The other variety, Leocadie Gentils, is a yellow sport from the one-time popular hairy petalled variety white Louis Boehmer. This variety is mentioned in the catalogue issued by Messrs. W. Wells and Co., Limited, Redhill. Possibly other specialists also have stock of this interesting plant.

COLOUR OF FLOWERS OF ELDORADO POTATO (*C. J.*).—The sensational Eldorado Potato produces a flower of heliotrope colour, tipped with white. We may say, however, that there are many doubtful stocks of this variety on the market, and in purchasing tubers it is advisable to deal only with firms who possess reputation above suspicion. We are pleased to hear that you like THE GARDEN, and thank you for your good wishes.

SOWING PEAS (*E. C.*).—It is a common fault in sowing garden Peas to sow them too thickly. You do not say how deep your drills are, but they should be quite 4 inches deep. The usual plan is to sow in drills as wide apart as the height of the varieties. Thus, if the variety will grow, say, 2½ feet high, then the drills should be about that distance apart. It is most important to give the

plants plenty of room; a good deal depends upon this. The best growers of Peas usually sow their seeds fully 4 inches apart. Yes, we think your method is a good one; you appear to be allowing them plenty of room for development, which is all important, and especially with later ones. A very good rule in the case of dwarf early Peas is to sow at the rate of one pint to every 30 feet; of varieties 3 feet or 4 feet high use a pint to 100 feet, and of Peas 5 feet to 6 feet high use a pint to sow 120 feet. We do not much care for your method of sowing Sweet Peas. If you have eight or nine seedlings in a 6-inch or 7-inch pot, they will be too close together when planted out (that is, if you plant them out undisturbed, as we understand you to mean) to make a bold clump. We would advise your sowing fewer seeds in the pot, so that they may be put out wider apart, for with the Sweet Pea as with the culinary Pea plenty of space for development must be allowed. Circular clumps are the most effective, the open space in the centre allows a free circulation of air among the plants, and they benefit by it. You would get better results by having two 5-inch pots with, say, 6 seeds in each; you would be able to make a better clump with two of these than with one 7-inch pot containing many seedlings. A long article about the Sweet Pea with coloured plate of Gladys Unwin, appeared in THE GARDEN of the 21st inst.

POINTS ABOUT RHUBARB (*D. M. R.*).—(1) All things considered, we do not think you can get a better variety of Rhubarb for a garden near the South Coast than Hawke's Champagne, which is of good flavour, large, and coloured through the stem. If you care to have a second variety, Victoria, though old, is still one of the best. (2) You ought to get good roots for planting from any of the leading nurserymen at 9d. or 1s. each. If you buy locally you might get them cheaper. (3) Rhubarb may be transplanted any time after the tops have died down in the autumn, till just before activity commences in the spring, provided the ground is in good working condition.

QUESTION.

CAN any reader give me the name of a small white Clematis that flowers freely outside in the West of England, and has a very strong vanilla scent?—GARNOUS.

LATE NOTES.

A Coloured Plate of the mixed border at Hampton Court, from a painting by Mr. E. A. Rowe, will be given with THE GARDEN next week.

Show fixtures.—From 38, Prospect Park, Exeter, Mr. Andrew Hope writes: "Permit me to point out an error in your Calendar just issued. The Devon Daffodil Show is held on April 11 at Plymouth, not at Exeter. This society's headquarters are at Plymouth, and the show is held there. The Exeter society has no Daffodil show." Mr. Hope also sends the following fixtures: Torquay Flower Shows, March 30 and November 2; Taunton, August 17; Bath and West and Southern Counties Show, at Nottingham, May 30, 31, June 1, 2, and 3; Royal Cornwall Show, at Newquay, June 7 and 8. "The Canterbury and Kent Rose Society's annual show will be held on Thursday, June 29," writes Mr. C. C. Williamson.

Windsor and Eton Rose Society. The summer show of this society will take place on July 1 next.

National Chrysanthemum Society. The Crystal Palace Company have now confirmed the dates originally selected by the committee for the three exhibitions to be held at Sydenham in 1905, viz., October 4 and 5, November 1, 2 and 3, and December 6 and 7.

Market Chrysanthemum growers. Some members of the committee of the recent National Chrysanthemum Society's market show of Chrysanthemums having expressed a desire to dine together in celebration of the success which attended that effort, a dinner has been arranged to

take place at Carr's Restaurant, 264, Strand, on Wednesday, the 25th inst., at 7 p.m. Tickets 4s. each, exclusive of wine. Mr. Robert Ballantine, chairman of the committee, will preside. After the dinner a statement of accounts of the market show will be submitted, and any arrangements as to the future will be considered.—DAVID INGLEFELLS, Secretary.

The British Gardeners' Association.—Nearly a hundred gardeners of Reigate, Redhill and district met at Redhill on Tuesday, the 10th inst., to hear an address by Mr. Watson of Kew on behalf of the British Gardeners' Association. The meeting was enthusiastically in favour of the project, only one gardener present advancing any opposition, whilst a resolution to form a local branch of the association was adopted almost unanimously. Mr. Seaman, head gardener at Margery Hall, Reigate, was elected local secretary. A well-attended meeting of gardeners interested in the British Gardeners' Association was held in the lecture-room at the Public Library, Swansea, on the 13th inst., the chair being occupied by Mr. H. A. Chapman, J.P. After letters had been read from several prominent local horticulturists regretting their inability to attend and expressing sympathy with the objects of the association, Mr. W. W. Pettigrew, Superintendent of Parks, Cardiff, addressed the meeting upon the necessity of such an association of British gardeners being formed to look after the interests of both gardeners and their employers. Mr. R. Hooper Pearson followed. He dealt particularly with the objects of the association as set forth in the prospectus, and strongly urged all present to become members of the association. After some discussion it was unanimously resolved to form a local branch, and Mr. D. Bliss, Superintendent of Parks, Swansea, was elected local secretary.

Origin of "Mignonette."—In a note about Mignonette in THE GARDEN, page 440, December 31, "A. de L. L." writes: "The original habitat of Reseda odorata was North Africa, whence it found its way through Italy to Paris. Lord Bateman brought the seed for us from that city in 1742, and, of course, it was the French who called it 'Little Darling,' though, strange to say, they now speak of it as Reseda, leaving its pet name with us." With reference to this we have received the following interesting note from Mr. A. A. Pettigrew, Hewell Grange Gardens, Redditch: "I have just read a letter in Vol. III. of 'Transactions of the Royal Horticultural Society,' an extract from which, taken in connexion with the note on Mignonette by 'A. de L. L.,' you may think worth quoting in THE GARDEN, since it corrects a false impression as to the origin of its name. The letter is headed 'Observations on, and Account of, the Cultivation of the Tree Mignonette,' by Joseph Sabine, Esq., F.R.S., &c., secretary. Read July 7, 1818." The extract is: "... Its introduction into our flower gardens was through the intervention of the late Lord Bateman, who brought it from France soon after the period it was first received by Miller. With Lord Bateman the appellation of Mignonette originated. Pleased with the appearance and fragrance of the plant, he gave to it this name of endearment, by which it is not known in France, the writers and gardeners of that country merely calling it le Reseda odorant. . . ."

WEATHER NOTES.

RAINFALL IN 1904.—ROOD ASHTON, WILTSHIRE.

TAKEN as a whole, the weather of the past year was most favourable for the garden and field, the fulness of the crops giving eloquent testimony to its geniality in all seasons. Though there were but six actually drier days than in 1903, there is a record of some 17 inches less rain compared with that memorably wet year, and, strange though it seems, there is a difference only of 2° in both the highest and lowest records of temperature for those two years. There were seventy-one frosts in 1904,

SWEET PEAS.

AFTER making hundreds of trials with Sweet Peas, and having examined many more hundreds on various seed trial-grounds, we make the following selection of 12 best varieties for the guidance of those who have not had the opportunity to closely compare and study the vast army which is now in cultivation. Our packets contain nearly half an ounce, or about 200 seeds, unless otherwise stated, a very different allowance from what is generally offered as a packet:—

Captain of the Blues.	Lady C. Hamilton.
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Dorothy Eckford (100 seeds)	Mrs. Dugdale.
Hon. Mrs. Kenyon.	Mrs. W. Wright
Janet Scott.	(100 seeds).
King Edward VII.	Othello.
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We offer the above splendid Collection for 2/6.
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also undertake the re-arrangement of old gardens, planting water gardens and woods, etc.

6 Daisy Alice, new salmon quilled	...	...	2	6
12 " Dresden China, tiny pink quilled	...	...	1	0
6 " Aucubifolia	...	...	1	6
6 Blue Primroses, lovely shades	...	...	2	0
6 Mauve Primroses, fine bedder	...	...	1	6
1 Polyanthus, Sky-blue Cœrulea	...	...	1	0
6 " Hose-in-Hose, various	...	...	2	0
6 " Jack-in-the-Box, various	...	...	2	0
4 " named Gold Laced, different	...	...	6	0
12 Primroses, double, including Pompadour and French Grey, all different	...	...	8	0
6 Auricula Alexandra, pale lemon	...	...	3	0
6 " Golden Queen	...	...	2	0
12 Saxifrages, named (mossy)	...	...	3	0
12 Sedums, named all different	...	...	3	0
12 Rock Plants, all different	...	...	4	0

Hardy Primulas, Hardy and Alpine Plants in great variety.

LISTS FREE.

ELDORADO, 2/6

for 1 oz., 5/- for 3 oz., 7/6 for 5 oz., 10/6 for 8 oz., 20/- per lb., 63/- for 3½ lbs., 120/- for 7 lbs.

As I hold one of the largest stocks of "Eldorado," I am determined not to be undersold by any reliable firm, and have, therefore, reduced my prices as above. To encourage the cultivation of this variety I will give a Prize of

£10 FOR ONE TUBER.

You have a chance of obtaining this, as well as a certain and sound investment, if you purchase seed from me. I bought my stock from Massey, with a guarantee that it was direct from Findlay. As an inferior potato is being sold under the name of "Eldorado," all buyers should obtain full proof that the stock they are buying is *bona-fide*. With regard to its being a sound investment, it needs very little calculation to prove this. If true stock is obtained, from one pound of seed, with very little trouble or expert knowledge, 1½ to 2 cwt. of potatoes can be grown, and as 3/6 per lb. is considered to be the price it will fetch next season, it can at once be seen that "Eldorado" is a good investment. Even supposing it does not realise this price, but is sold at 6d. or 1/- per lb. (not that it will be), where can you secure a better return for your money? The variety has proved an enormous cropper, absolutely disease resisting, handsome tubers, and cooks splendidly.

Catalogue of Potatoes, containing full particulars of above and other prizes, as well as a complete list of new and up-to-date varieties, free on application.

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Succeed Everywhere.	Order Now.
Hybrid Perpetuals	7/- per dozen, 25/- per 50
Hybrid Teas	10/6 " 40/- "
Tea Scented	15/- " 57/6 "
Moss Roses	9/- " 32/6 "
Climbing Roses	9/- to 12/- per dozen.

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ESTABLISHED 1804.

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TESTED SEEDS IN ANTARCTIC REGIONS.



GARDENING ON THE S.S. "DISCOVERY."
From the "Illustrated London News."

It was Messrs. CARTER'S Privilege to supply a quantity of their TESTED SEEDS to Captain Scott, who took them out to the Antarctic regions in 1901. By favour of the Botanist accompanying the expedition some unused portions were returned to Messrs. CARTER in 1904. These were tested, and, notwithstanding the fact that they had twice passed through the tropics and had been exposed to a temperature of 72° below freezing point, they still grew from 70 to 92%.

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THE GOLD MEDAL, ST. LOUIS, 1904.

ILLUSTRATED CATALOGUE FREE.

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EXHIBITORS

PLEASE NOTE.

We are offering CASH PRIZES
at Shrewsbury Floral Fete and
Birmingham Chrysanthemum Show for
Collection of Vegetables grown from our Seeds.

Full particulars in Seed Catalogue, Free.

compared with sixty-three in the previous year. Those occurring in March did some injury to fruit blossom in low places, and to Plums in particular; but it is well within the memory of gardeners how favoured were the early months of the year for fruit blossom, and Strawberries and Apples in particular. During the past ten years there have been five with a lesser rainfall than that of 1904. It is worthy of note that the barometer gave the highest reading during the three months of winter and the lowest in February.—W. STRUGNELL.

NORTH WALES.

Month.	Total depth.	Greatest fall in 24 hours.	Number of days with 0' or more recorded.
Inches.	Depth.	Date.	
January ..	5.78 ..	.62 ..	13 .. 21
February ..	4.99 ..	1.65 ..	19 .. 21
March ..	4.88 ..	1.63 ..	13 .. 18
April ..	5.48 ..	.74 ..	28 .. 22
May ..	4.19 ..	1.10 ..	27 .. 21
June ..	1.67 ..	.51 ..	1 .. 9
July ..	3.14 ..	.75 ..	23 .. 21
August ..	6.22 ..	1.24 ..	21 .. 20
September ..	4.82 ..	1.65 ..	2 .. 12
October ..	4.21 ..	2.33 ..	16 .. 15
November ..	3.53 ..	.55 ..	8 .. 19
December ..	7.53 ..	.80 ..	4 .. 23
Total ..	56.44 ..		225

Rain gauge: Diameter of funnel, 5 inches. Height of top: Above ground, 1 foot; above sea level, about 50 feet.—JOHN ROBERTS, *The Gardens, Tan-y-bwlch, Merioneth.*

HAMPSHIRE DISTRICT.

THE rainfall for 1904 in this locality cannot be compared with that of 1903, when the fall was 43.11 inches—a record. Still, in 1904 it was more than 2 inches above the average. The time of observation was 9 a.m. for the 24 hours preceding. The diameter of the gauge is 8 inches. Height of top above ground, 1 foot 2 inches; 390 feet above sea level.

Month.	Total depth.	Greatest fall in 24 hours.	Number of days with 0' or more recorded.
Inches.	Depth.	Date.	
January ..	4.79 ..	.56 ..	28 .. 22
February ..	4.56 ..	.68 ..	3 .. 24
March ..	1.33 ..	.34 ..	8 .. 15
April ..	1.61 ..	.31 ..	15 .. 12
May ..	4.33 ..	1.20 ..	21 .. 14
June ..	1.89 ..	1.03 ..	27 .. 9
July ..	1.24 ..	.29 ..	30 .. 13
August ..	2.75 ..	.64 ..	23 .. 16
September ..	2.72 ..	.81 ..	15 .. 12
October ..	2.97 ..	.82 ..	7 .. 12
November ..	1.19 ..	.43 ..	11 .. 9
December ..	3.35 ..	.81 ..	7 .. 19
Total ..	32.73 ..		177

It will be observed that in 1904 rain fell on 177 days, against 179 days in 1903, though the fall was just 10.38 inches less in 1904. January was the wettest month, followed closely by February, when rain was registered on 18 consecutive days. On two occasions only was more than an inch registered during 24 hours, viz., on May 21, 1.20 inches, and June 27 with 1.03 inches. Taking it altogether, the past year was without doubt one of the most favourable on record.—G. ELLWOOD, *Swanmore Gardens, Bishop's Waltham.*

LEICESTERSHIRE.

Inches.	Inches.
January ..	2.08 ..
February ..	2.57 ..
March ..	1.52 ..
April ..	1.12 ..
May ..	1.72 ..
June ..	.24 ..
July ..	2.43 ..
Total ..	19.51

—FRANK J. CLARK, *The Gardens, Wistow Hall, Leicester.*

KINGSWEAR, SOUTH DEVON.

Inches.	Inches.
January ..	7.28 ..
February ..	6.78 ..
March ..	2.29 ..
April ..	1.77 ..
May ..	3.94 ..
June ..	1.50 ..
July ..	5.96 ..
Total ..	44.36

The fall for the year is about 6 inches in excess of the average, the months of January, February, May, and July totalling 23.96 inches, against an average for those months of 10.20 inches, or considerably more than double the normal fall. Almost the whole of the July fall occurred during the last week of the month. The year has been, with the exception of the extraordinary rainfall of the first two months, a very favourable one, the heavy fall at the end of January effectually preventing a drought in the late summer. October was a particularly pleasant month, with a rainfall much below the average, a high temperature, and an almost entire absence of wind. In some portions of South Devon nearly 20° of frost was registered in November, but 6° was the most experienced at Kingswear.—S. W. FITZHERBERT.

NOTES FROM THE MARKETS.

COVENT GARDEN MARKET.

WHOLESALE PRICES.

THE prices now are variable from day to day. Chrysanthemums are running short, and are inclined to advance. English Roses continue very scarce, and they are difficult to procure except when on order. Carnations are more plentiful, but make good prices. Bouvardia is nearly over for the season. Lilies are not quite so plentiful, and prices may advance. Orchid bloom is quite equal to all demands; some very good Cattleyas are now seen. Zonal Pelargonium Raspaal is more plentiful, and rather lower in price. Lily of the Valley continues very plentiful, but prices do not vary much. Daffodils are now a great feature; Golden Spur is very good; princeps and Telamonius plenus are now very plentiful. Prices are fairly well maintained, but we may expect to see them lower soon. Tulips are dearer than they were, but are inclined to rise in price. Violets continue scarce, and prices keep high. Callas are very plentiful. All French flowers are scarce except the Mimosa (*Acacia dealbata*).

In pot plants Azalea indica in various colours are the most conspicuous feature. Hyacinths make a great show; Primula obconica is very pretty; Cyclamen are fairly plentiful; pot Chrysanthemums are nearly over; Solanums are still fairly good; Cinerarias are very good; Acacia Drummondii is very pretty; and Ferns, Palms, and other foliage plants are plentiful. In fruit at present there is little variation in prices, but Grapes may be expected to advance considerably. Bananas are rather cheaper; the St. Michael's Pineapples are very fine, and prices are moderate. Pears hold out well, and we are now getting Peaches and Plums from South Africa. Cucumbers are scarce, and make from 12s. to 18s. per dozen.

FLOWERS.

	s. d.	s. d.
Azalea indica alba ..	per dozen bunches	4 0 to 6 0
" mollis ..	"	12 0 " 18 0
Bouvardia, white ..	"	6 0 " 8 0
" pink and red ..	"	5 0 " 6 0
Calla rethiopica ..	blooms	3 0 " 5 0
Camellias ..	"	2 0 " 3 0
Cattleya labiata ..	"	8 0 " 12 0
Carnations ..	bunches	18 0 " 30 0
" special American varieties ..	blooms	3 6 " 6 0
Cyclamen ..	bunches	6 0 " 8 0
Cypripedium insigne and others ..	blooms	2 6 " 3 6
Dendrobium nobile ..	"	2 6 " 3 6
Daffodils, yellow trumpet ..	bunches	6 0 " 9 0
" double ..	"	9 0 " 12 0
" princeps ..	"	8 0 " 10 0
Eucharis amazonica ..	blooms	3 0 " 4 0
Euphorbia jacquiniiflora ..	per bunch	2 0 " 3 0
Freesia refracta alba ..	per dozen bunches	3 6 " 4 6
Gardenias ..	blooms	2 0 " 3 0
Helleborus niger ..	"	1 6 " 2 0
Hyacinths, Roman ..	bunches	4 0 " 6 0
Lilac, English forced ..	per bunch	3 0 " 4 0
" French ..	"	2 6 " 3 6
Lilium auratum ..	"	2 6 " 3 0
" longiflorum ..	"	4 0 " 5 0
" lancifolium album ..	"	2 0 " 2 6
" .. rubrum ..	"	2 0 " 2 6
" tigrinum ..	"	2 0 " 3 0
Lily of the Valley ..	per dozen bunches	9 0 " 18 0
Marguerites, white ..	"	3 0 " 4 0
" yellow ..	"	2 6 " 3 6

FLOWERS (continued).

	s. d.	s. d.
Narcissus, Paper-white ..	per dozen bunches	3 0 " 4 0
" Soleil d'Or ..	"	3 6 " 5 0
" Gloriosa ..	"	4 0 " 5 0
Odontoglossum crispum ..	blooms	2 6 " 3 0
Pancratiums ..	"	3 0 " 4 0
Primula sinensis, dbl. white ..	bunches	5 0 " 6 0
Pelargonium (show), white ..	"	4 0 " 6 0
" (zonal), dbl. selt. ..	"	6 0 " 9 0
" salmon ..	"	6 0 " 8 0
Poinsettias ..	heads	3 0 " 8 0
Roses (English) ..	blooms	5 0 " 12 0
" (French) ..	"	1 0 " 1 6
Tuberose ..	"	0 6 " 0 8
" on stems ..	per bunch	0 9 " 1 0
Tulips ..	per dozen bunches	6 0 " 12 0
Violets, blue ..	"	3 6 " 4 0
" Parma ..	per bunch	3 6 " 5 0

ORNAMENTAL FOLIAGE.

Asparagus plumosus ..	per bunch	1 0 " 2 6
" .. long trails, each ..	per bunch	0 9 " 1 0
" .. Sprengeri ..	per bunch	0 9 " 1 6
Adiantum cuneatum ..	per dozen bunches	6 0 " 9 0
Myrtle ..	"	4 0 " 6 0
Mediola asparagoides (Smilax) ..	long trails, per bunch	2 0 " 3 0
English Fern (various) ..	per dozen bunches	3 0 " —
Berberis Mahonia ..	"	2 6 " 3 0
Ivy leaves (bronze) ..	"	1 6 " 2 0
" long trails ..	per bunch	1 0 " 2 6
" short green ..	per dozen bunches	1 0 " 1 6

FRUIT.

Apples, English dessert ..	per sieve	4 0 " 8 0
" .. culinary ..	"	2 0 " 5 0
" .. American ..	per barrel	10 0 " 24 0
" .. Newtown Pippins ..	per case	16 0 " 18 0
Bananas, Jamaica ..	per bunch	5 0 " 10 0
" .. Canary Islands ..	"	8 0 " 14 0
Cob Nuts ..	per dozen lb.	5 0 " 6 0
Cranberries ..	per box	6 0 " 8 0
Grapes, Alicante ..	per dozen lb.	8 0 " 12 0
" .. Gros Colmar ..	"	10 0 " 24 0
Lemons ..	per case	8 0 " 14 0
Oranges, Valencia ..	"	6 0 " 10 0
" .. Jaffas ..	"	10 0 " 12 0
" .. Jamaicas ..	"	5 0 " 7 0
Pears ..	"	10 0 " 12 0
Pines, St. Michael's ..	each	2 6 " 5 0

TRADE NOTES.

BULBS, VEGETABLE AND FLOWER SEEDS.

THE catalogue of Messrs. Ant. Roozen and Co., Overveen, Haarlem, Holland (agents for Great Britain, Messrs. Mertens and Co., 3, Cross Lane, St. Mary-at-Hill, E.C.) is a comprehensive one, and contains lists of hundreds of bulbs and seeds of both useful and ornamental plants. Copies may be had from Messrs. Mertens and Co.

BARR'S SEED GUIDE.

FROM King Street, Covent Garden, Messrs. Barr and Sons write: "We would especially draw your attention to the following points in our illustrated seed guide. It is arranged alphabetically to facilitate ready reference. On page 27 we give some useful practical hints on the raising of flower seeds generally. A fine list of novelties and specialties for 1905 will be found on pages 23 and 37, while in the body of the catalogue only the best and most useful of kitchen and flower garden seeds are described. A list of useful gardening books is given on pages 122 and 124."

SEED POTATOES FOR AUSTRALIA.

A LARGE order for seed Potatoes for the Australian Government has been obtained by Messrs. W. Davie and Co., Haddington. Among the varieties to be supplied are Northern Star, Warrior, Pearl, Diamond, and others.

PUBLICATIONS RECEIVED.

"Journal des Roses," containing a coloured plate of Rose Maréchal Vaillant (crimson hybrid perpetual), Les Roses ("Bulletin de la Société française des Roséristes"), "Le Chrysanthème," "Lawns and other Grassy Grounds," by James Carter and Co., High Holborn, "Hand List of Roses as cultivated in the Gardens at St. Fagans Castle and Hewell Grange," "New South Wales Year Book," "Annual Report of the Rhode Island Agricultural Experiment Station," "Bulletin de la Société Nationale d'Acclimatation de France," "Bulletin of the Department of Agriculture," "Annual Report of the Public Gardens and Plantations of Jamaica," "Fourth Report of the Woburn Experimental Fruit Farm," by the Duke of Bedford, K.G., and Spencer A. Pickering, F.R.S.; and "Notes on the Commercial Timbers of New South Wales," by J. H. Maiden, F.L.S., &c.

CATALOGUES RECEIVED.

Begonias.—Messrs. T. S. Ware, Limited, Feltham, Middlesex.
Seed Guides.—Messrs. Kent and Brydon, Darlington; James Backhouse and Son, York; J. Lambert and Son, Trier, Germany.
Selected Seed Potatoes.—R. W. Green, Wisbech.
Roses.—John Peed and Son, Mitcham Lane, Streatham, S.W.
Everything for the Garden.—Peter Henderson and Co., 36 and 37, Cortlandt Street, New York.

* * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

THE ROYAL HORTICULTURAL SOCIETY, GARDENERS' ROYAL BENEVOLENT INSTITUTION ANNUAL MEETING, AND OTHER REPORTS.

THE Horticultural Hall in Vincent Square, Westminster, was bright with plants and flowers on Tuesday last, the occasion of the Royal Horticultural Society's fortnightly exhibition. Winter-flowering greenhouse plants, berried and variegated shrubs, hardy alpinas, and Orchids contributed to the display. A gold medal was awarded by the Orchid committee to Mr. G. F. Moore, Chardwar, Gloucestershire, for his extensive group of *Cypripediums*, *Lælias*, &c. Two first-class certificates and several awards of merit were granted to new Orchids, and the floral committee gave an award of merit to *Cotoneaster pannosa* and to *Erica mediteranea hybrida*.

ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, de B. Crawshaw, W. A. Bilney, R. Brooman White, Norman C. Cookson, J. Wilson Potter, W. Boxall, W. H. Young, A. A. McBean, H. G. Morris, W. H. White, F. J. Thorne, H. Ballantine, T. W. Bond, J. Charlesworth, W. Thompson, Francis Wellesley, Walter Cobb, and F. Sander.

G. F. Moore, Esq., Chardwar, Bourton-on-the-Water, Gloucester (gardener, Mr. W. H. Page), made a fine display with a large miscellaneous group of Orchids. *Cypripediums* were most prominent among them; they comprised many of the best hybrids in flower at this season. Among them were *C. aureum virginale*, *C. leeanum virginale*, *C. mooreanum* (a very handsome flower), *C. Thompsoni*, *C. Argus Moensei*, *C. leeanum clinkaberryanum*, *C. Evenor*, *C. l. Purity*, and *C. nitens magnificum* Ball's variety. *Lælia anceps sanderiana* and *L. Williamsi* were arranged tastefully throughout the group, and added much to its effect. A splendid specimen of *C. Sallieri aureum* was shown. *Phalænopsis intermedia Portei*, a rarity, was also noticed, and there were some good plants of *Dendrobium superbiens*, *D. Phalænopsis*, and *Cœlogyne cristata*. There were about 160 plants in this group. Gold medal.

In the group from Messrs. Charlesworth and Co., Heaton, Bradford, *Lælio-Cattleya Charlesworthii*, with orange-red sepals and petals and purple lip, was very conspicuous, and the brightest flower in the group. *Cattleya Enid* (Mossie \times *gigas*) is a handsome flower, and so are *Lælio-Cattleya Callistoglossa* (*L. purpurata* \times *C. gigas*), and *Brassocattleya gigas digbyana*, a very large flower with rose-pink sepals and petals and lip, the latter beautifully frilled. *Lælio-Cattleya Lydia* (*L. Cowanii* \times *C. gaskelliana alba*) is rich yellow throughout; a very striking hybrid. Various *Odontoglossums* and *Cypripediums* added further variety to this group. Silver Flora medal.

Messrs. Sander and Son, St. Albans, exhibited a group of choice Orchids. Among them was *Cypripedium leeanum* var. *J. Gurney Fowler*, that obtained a first-class certificate; *Cymbidium eburneo-lowianum*, *Cypripedium Phœbe* var. *exquisitum*, *C. nitens splendidum*, *C. Rolfei* var. *stupendum*, and a new *Cypripedium* named *C. gratixianum*. The latter is a small flower, with pale greenish yellow pouch and petals. The lower half of the dorsal sepal is green, the upper half white, and spotted with black-purple. Silver Flora medal.

Messrs. Cypher and Son, Cheltenham, made a bright display with some good varieties of *Lælia anceps*, *Cypripediums*, *Odontoglossum Pescatorei*, &c. Among the *Cypripediums* were some finely-flowered plants of *C. Morganæ*, *C. leeanum* Cypher's variety, *C. l. giganteum*, *C. nitens*, *C. Sallieri hyeanum*, *C. lathamianum*, and others. The *Lælias* were very beautiful, and other noticeable Orchids were *Lycaste Skinneri alba*, *Odontoglossum Cervantesii*, &c. Silver Flora medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed *Lycaste Skinneri alba*, *Cypripedium Sallieri hyeanum*, and *C. aureum virginale*.

M. Vuylsteke, Loochristi, Ghent, exhibited some of his beautiful *Odontoglossum* hybrids, *O. Vuylstekei*, heavily blotched with chocolate upon a yellow ground; *O. wilckeanum*, with brown-red blotches upon a pale yellow ground; *O. loochristiense*, blotched with chocolate colour upon yellow; and *O. harryo-crispum* were included. Silver Banksian medal.

Messrs. James Veitch and Sons, Limited, Chelsea, showed some remarkable pretty hybrid Orchids. Included were *Lælio-Cattleya blechleyensis*, with rich purple lip and rose-purple sepals and petals; *L.-C. wellsiana*, purple lip, yellow throat and blush sepals and petals, a lovely flower; *L. Mrs. M. Gratrix*, bright yellow, tinged with orange; *Calanthe Bella* (*C. vestita* Turneri \times *C. Veitchii*) numerous *Cypripediums*, including *C. Baron Schröder* (*C. ananthum superbum* \times *C. fairieanum*), and *C. Leonidas* (*C. villosum* \times *C. leeanum*). The rich orange-red *Dendrobium subclausum* was also shown. Vote of thanks.

Several *Cypripedium* hybrids and others were shown by F. Wellesley, Esq., Westfield, Woking. Among the former were *C. Cassandra Westfield* var., *C. Mrs. Francis Wellesley* (*gowerianum* \times *sanderianum*) and *C. dicksonianum* (*villosum* \times *Memoria Moensii*?). *Lælio-Cattleya Charlesworthii* magnifica obtained an award of merit.

Maxillaria Lindenae was shown by de Barri Crawshaw, Esq., Sevenoaks (gardener, Mr. Staples), *Cypripedium mooreanum* Fowler's variety was sent by Gurney Fowler, Esq., South Woodford (gardener Mr. Davis), and *C. insigne Northchurch* variety by J. Forster Alcock, Esq., Northchurch (gardener, Mr. Foster).

Lord Rothschild, Tring Park, Tring (gardener, Mr. A. Dye), exhibited a very large photograph of *Phalænopsis* growing in a house at Tring. Vote of thanks.

NEW ORCHIDS.

A first-class certificate was awarded to *Cypripedium leeanum* var. *J. Gurney Fowler*, from Messrs. Sander and Sons; and to *Calanthe* \times *Chapmanii*, a beautiful hybrid between *Calanthe burfordensis* and *Oakwood Ruby*, from Mr. Norman C. Cookson.

An award of merit was given to each of the following: *Lælio-Cattleya Charlesworthii* magnifica, from Mr. F. Wellesley; *Cattleya Octave Doin* (*Mendelii* \times *aurea*), from Messrs. Charlesworth and Co.; *Cypripedium aureum hyeanum* and *C. Laurebel* (shrubby variety), from Mr. F. M. Ogilvie, Oxford; *Odontoglossum merificum* (*crispum* \times *sceptrum*) and *Cypripedium* \times *Sanctæus* (*Actæus* \times *insigne Sanderæ*), from Mr. Norman C. Cookson; and *Cypripedium* G. F. Moore (*mooreanum* \times *Sallieri aureum*), from Mr. G. F. Moore.

FRUIT COMMITTEE.

Present: Mr. A. H. Pearson (chairman), Messrs. James H. Veitch, F. Q. Lane, George Kelf, Alex. Dean, S. Mortimer, T. W. Bates, J. Cheal, H. Farr, W. Fyfe, Edwin Beckett, J. Willard, Owen Thomas, J. Jaques, G. Norman, and James Gibson.

Mr. H. J. Jones, Ryecroft Nurseries, Lewisham, S.E., exhibited a very large collection of Potatoes in many varieties. Such famous sorts as Eldorado, Sir John Llewelyn, Northern Star, King Edward VII., Sutton's Discovery, The Crofter, and others were finely shown. The tubers were an excellent lot, and a splendid exhibition of the best varieties of the Potatoes now on the market. Among other less renowned varieties we noted Mr. Breese, Leda, Waverley (coloured kidneys), Blacksmith, The Scot, Eightyfold (coloured round), Noroton

Beauty (the new American Potato), Market King, and others. Silver-gilt Knightian medal.

An interesting collection of Apples not usually grown was shown by R. C. Appleton, Esq., Bar House, Beverley, Yorks, per Mr. Cecil H. Hooper. Among the varieties were Nancy Jackson, a favourite in North Yorkshire, cooking; Forester, cooking, a large conical fruit; Newland Sack, said by Mr. Crump of Madresfield Court to be his best and largest late-keeping Apple; Jonathan, an American sort, cooking or dessert, with bright red cheek; and others. Vote of thanks.

Mr. W. Strugnell, Rood Ashton, Wilts, showed a collection of Apples that included some very fine fruits. Tower of Glamis, Hoary Morning, King of Tompkin's County, Bismarck, and Sandringham were splendid dishes. Hoary Morning was brilliantly coloured; in fact, the colouring of all was good. Silver Banksian medal.

A cultural commendation was given to Sir W. D. Pearson, Bart., M.P., Paddockhurst, Sussex (gardener, Mr. Wadds), for a splendid lot of fruits of Tomato Sutton's Winter Beauty.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. H. B. May, James Hudson, J. Green, G. Reuthe, Charles Blick, J. Jennings, W. Howe, J. F. McLeod, C. R. Fielder, R. Wilson Ker, F.S.A., George Nicholson, H. J. Jones, R. W. Wallace, H. J. Cutbush, Charles E. Shea, Charles E. Pearson, W. Cutbush, Charles Jeffries, E. H. Jenkins, C. J. Salter, W. P. Thomson, W. J. James, Charles T. Drury, J. A. Nix, and R. Hooper Pearson.

Messrs. William Cutbush and Sons, Highgate, staged an interesting lot of alpinas and other plants on a rockery. In large groups we noticed *Saxifraga burseriana* major full of bud and blossoms. Very beautiful were many of the bulbous Irises, as, for example, *I. Histrio*, very fine in colour; *I. galatica*, a whitish form with violet blades; *I. reticulata*, very fine; *I. sind-pers*, very beautiful; and *I. Vartani*. Other good things were *Sternbergia fischeriana hyemalis* and *Rhododendron dahuricum*, a charming bush with rosy flowers. Lenten Roses, Hepaticas, Shortia, Cyclamen, and hardy Heaths contributed to a most interesting group. Silver Banksian medal.

Mr. H. B. May, Edmonton, exhibited a group of Ferns, in which we noted *Nephrolepis Piersoni*, *N. grandiceps*, very finely crested; *Davallia mooreana*, *D. Tyermanii*, *Adiantum Fergusoni*, a most distinct plant; and *Hymenophyllum crinitum*, with broad and very hairy fronds. Silver Banksian medal.

Messrs. H. Cannell and Sons, Swanley, showed a long table of Chinese Primulas in sets of varieties. The plants were well grown and freely flowered, the flowers large and shapely and good in colour. Mammoth, purple; M., yellow and white; Fern leaf blue; Mammoth, blush; M. red, a very rich intense colour; M., white, a fine companion to it; M., salmon, very good in colour, were among the more striking. The same firm staged many vases of the blue winter-flowering *Coleus*, *C. thyrsoideus*, in capital form. Silver Flora medal.

Messrs. James Veitch and Sons, Chelsea, filled a table with flowering plants, in which *Eupatorium vernale*, *Coleus thyrsoideus* fine blue, *Cheiranthus Kewensis*, and *Jacobinia coccinea* were the chief occupants; all of these are good winter-flowering plants. This firm also showed flowering examples of *Hamamelis mollis* and *H. arborea*—the latter in large bushes, the former in small ones. The superiority of *H. mollis* is well seen; the bracts are more richly golden and much larger in size. *Cotoneaster pannosa* in fruit, with arching branches, was very pretty.

Mr. L. R. Russell, Richmond, staged shrubs in pots and baskets, such as *Hamamelis arborea*, very fine; *Aucuba vera*, in good fruit; silver *Eaonymus*, *Hedera madeiriensis variegata*, a very effective plant; *Eurya latifolia*, fol. var. and *Aucuba macrophylla*, a rich yellow-leaved kind.

Cyclamen persicum, of a very good strain, was sent by Mr. Seaward of Hanwell. There were some ten or twelve dozen splendidly grown and well-flowered plants, the dominant colours being white, crimson, blush, and rose. Silver-gilt Banksian medal.

Messrs. Barr and Sons, Covent Garden, had a small exhibit of Snowdrops (*Galanthus*), such as *Elwesii* and others being noted. The *Cyclamen*-flowered Daffodil and the Pyrenean Daffodil, with Christmas Roses, were also shown. A small pot of *Narcissus minimus* was in flower in this group.

Perhaps the most striking exhibit of flowering plants was that of forced Magnolias from Messrs. Cutbush and Son, Highgate. These comprised bush and fan-trained examples of *M. soulangeana*, the huge cups and buds making a fine picture. *M. halleana*, white; *M. amabilis*, white, lined red, were the chief kinds shown. The plants rising from a setting of Palms were supported by a heavy margin of *Aralia* in pots. Silver-gilt Banksian medal.

Flowering plants, as Carnations, *Cyclamens*, *Eucharis*, *Lily of the Valley*, *Roses*, *Arums*, *Cinerarias*, &c., were arranged upon a large table by Messrs. Ambrose and Son, Cheshunt. Very effective was an arrangement of scarlet *Pelargonium* and *Lily of the Valley*, the former occupying a raised position, with the scarlet at the base. Such Carnations as *Mrs. Lawson*, *Floriana*, and *Enchantress* were in abundance and well shown. Silver Banksian medal.

Messrs. T. S. Ware, Limited, Feltham, had a very large exhibit of alpine in pans, showing the winter character of these plants. *Sempervivums*, *Sedums*, *Saxifragas*, and the like were in plenty. A few flowering plants only were included, as *Primula megasefolia*, *Adonis amurensis*, and *Lithospermum rosmarinifolium*, a brilliant bit of blue. Bronze Flora medal.

The Misses Hopkins, Knutsford, Cheshire, showed a magnificent basket of Christmas Roses, the narrow-leaved kind, *H. niger angustifolius*. The plants were admirably grown. A selection of *Primroses* of the blue-flowered strain, with *Primula elatior cærulea* nicely in flower, were also in this exhibit. Vote of thanks.

Cut Conifers in great variety were shown by Lady Plowden, Aston Rowan, Oxon (gardener, Mr. Clarke). The collection included *Yews*, *Cupressus*, *Junipers*, and *Abies*.

Some pretty pans of *Cyclamen* were shown by Messrs. Hugh Low and Co., Enfield. We noted *Low's Salmon*, *Deep Red*, and *Giant White* among them, *Cryptomerias*, *Cedars*, and other such things.

Mr. W. Hayward, Floral Depot, Fife Road, Kingston-on-Thames, set up a beautiful lot of *Chrysanthemum Winter Cheer* in ornamental baskets and vases, together with bouquets of *Lily of the Valley* and *Golden Spur Daffodil*, *Tulips*, and other things. The arrangement and quality of the flowers were excellent, and reflected much credit on the exhibitor. Silver Banksian medal.

An award of merit was given to *Cotoneaster pannosa* and to *Erica mediterranea hybrida*.

BRISTOL AND DISTRICT GARDENERS' ASSOCIATION.

THE fortnightly meeting of this association was held at St. John's Parish Rooms on Thursday, the 12th inst. Colonel Cary Batten, the president of the association, accompanied by Mrs. Cary Batten, was present, but they were unable to remain throughout the meeting. Colonel Cary Batten addressed a few words to the members, and congratulated them on the progress the association was making, and hoped the steady progress would be maintained. It was always a pleasure to Mrs. Cary Batten and himself to pay the society a visit. Mrs. Cary Batten then presented the prizes to the successful competitors, the competition being for three plants in bloom. The first prize went to Mr. W. Howel Davis (gardener, Mr. Curtis); second, Mr. W. A. F. Powell (gardener, Mr. Rukes); and third to Mrs. Colman (gardener, Mr. Spry). Mr. W. A. Garaway was invited to take the chair during the remainder of the evening, and called upon Mr. Binfild to read a paper on "Decorative Plants," which was an interesting and practical one. He detailed the method of cultivation of Palms, Crotons, and Poinsettias, composts, potting, the most suitable temperature, and

general treatment in a clear and concise way. A discussion followed his lecture, and he was accorded the thanks of the meeting. A hearty vote of thanks to Mr. Garaway, who takes a practical interest in the association, terminated an enjoyable evening.

LIVERPOOL HORTICULTURAL ASSOCIATION.

THE annual dinner was held at the Bear's Paw Hotel, Liverpool, on the 14th inst., Walter Webster, Esq. (Messrs. Thomas Davies and Co.), presiding over a numerous assembly. The tables were effectively embellished with beautiful plants and flowers, the work of the committee, supplemented by gifts from friends. About 130 attended, among whom were Messrs. R. W. Ker, Andrew Ker, C. A. Young, A. J. Crippin, R. G. Waterman, F. A. Hazleton, S. Rowlands, H. Middlehurst, W. Rooking, J. Gibbins, W. Mercer, T. Foster (chairman of committee), &c. The toast of the evening, "Success to the Liverpool Horticultural Association," was given by Mr. T. Foster, who stated that the society was in a better position now than twelve months ago. He also referred to the value of the work of the association, which to some extent had induced the corporation to cater for the inhabitants by giving splendid exhibitions of the most popular flowers at their various parks throughout the city. Mr. J. Devanney ably responded, and invited the support of those present, so that the work of the association might continue and be extended. The pleasure of the evening was enhanced by a well-rendered programme of music.

CARDIFF GARDENERS' ASSOCIATION.

THE opening meeting for the New Year took place at the Sandringham Hotel on Tuesday, the 10th inst., when Mr. T. Clarke presided. A large number attended to hear a lecture upon "The Twelve Best Vegetables to Grow for Exhibition," by Mr. E. H. Battram, Parknewydd, Abercynon. General disappointment prevailed upon hearing the announcement by telegram that this gentleman was laid up with an attack of influenza, and the doctor would not allow him to risk the journey. The meeting unanimously decided to ask Mr. John Julian to deliver a lecture, entitled "Some Hints upon the Selection and Staging of Fruits and Vegetables for Exhibition," the same which he delivered before the Bassaleg Cottagers' newly-formed association on December 16 last. The request was acceded to; many points were shown and explained as to what oftentimes placed exhibitors either winners or losers. Mr. H. R. Farmer opened the discussion, in which many joined in afterwards. A very hearty vote of thanks was accorded the lecturer for coming to the rescue with such a useful lecture.

EAST ANGLIAN HORTICULTURAL CLUB.

NEARLY 100 members assembled on the 11th inst. at the Shirehall Hotel, Norwich, for the annual dinner of this club. Among those present were Messrs. Charles Daniels, John Green, T. B. Field, J. W. Church, George Davison, J. Clayton, W. Chettleburgh, and other well-known horticulturists. Following the dinner was an enjoyable evening of toast and song. In proposing the toast of the evening, "Success to the East Anglian Horticultural Club," Mr. John Green said how pleased they all were to see the club still growing in usefulness. He would like to see more amateurs join, and, if possible, to have exhibition classes for them. The president (Mr. J. Powley), vice-president (Mr. T. B. Field), and the secretary (Mr. W. L. Wallis) responded, the latter giving some of the most marked directions of the club's progress. Other toasts were "The Norfolk and Norwich Horticultural Society," "Success to the Horticultural Trade of Norfolk," and "The Botanical Section."

BATH GARDENERS' DEBATING SOCIETY.

THE first smoking concert of the Bath Gardeners' Self-He'p and Debating Society was held on the 9th inst. at the Foresters' Hall, Dr. Paton, one of the vice-presidents, in the chair. Among others present were Messrs. T. Parrot (chairman). There was a large attendance. Mr. C. T. Foxcroft (president) wrote apologising for his absence. During the interval a presentation was made to the chairman of the society (Mr. Parrott) by the chairman. Dr. Paton, having expressed his pleasure that the society was making such progress, said the members had much pleasure in showing their appreciation of Mr. Parrott's efforts for the society. He felt that such meetings as those for social intercourse must in the end tend to benefit every one of them. He had great pleasure in presenting Mr. Parrott with a handsome pipe, and to express the hope that he might long be spared to smoke it. Mr. Parrott, in response, thanked the gathering heartily for the present, and acknowledged the work of Mr. McLaren and Mr. Butt in the formation of the society and the great help of the committee. Considering that it was only three months old, and the society had a membership of 118, he thought they had done remarkably well, and that they might hope to double or treble the numbers by next year. Dr. Paton left at this stage, but before he did so his health was toasted with musical honours. Mr. Parrott presided during the rest of the proceedings, which were throughout of a most enjoyable character.

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE monthly committee meeting of this society was held at the Caledonian Hotel, Adelphi Terrace, recently. Mr. Charles H. Curtis presided. Twelve new members were elected and one nominated. Fifteen members have received sick benefit during the last month, the amount of sick pay being £36 18s. The usual grants were made to members on the benevolent fund. A grant of £5 was also made to a member in distress, who had recently lost his wife, it being a very deserving case. This meeting brought the financial year to a very successful close.

THE GARDENERS' ROYAL BENEVOLENT INSTITUTION.

THE sixty-sixth annual general meeting of this institution was held at the Covent Garden Hotel on the 19th inst., when Mr. Harry J. Veitch presided over an attendance of about thirty. Among those present were Dr. Masters, Messrs. A. W. Sutton, Owen Thomas, James Hudson, George Monro, E. T. Cook, S. Segar, Alderson, E. J. Monro, B. Monro, E. F. Hawes, and others. The secretary, having read the notice convening the meeting and the minutes of the last annual general meeting, then read the following report:

ANNUAL REPORT.

It is with much pleasure the committee present their annual statement with accounts (as audited) for the year 1904. They desire to express their gratification and thankfulness at being able to report the continued success of the work which has for its object the permanent and also the temporary assistance of a class who, before being overtaken by misfortune, declining years, or other causes, do so much for the necessities and pleasures of others. At the commencement of the year, 207 pensioners—being three more than at the beginning of the previous year; 121 men and 86 widows—were each receiving for life £20 and £16 a year respectively, involving an annual liability of £3,796. During the year 17 of that number have died—11 men and 6 widows—whilst one man has relinquished the pension in consequence of a change in his circumstances, and one widow has been removed to an asylum, owing to her mental condition, thus creating 19 vacancies. Of this number two were filled in by the committee in accordance with Rule III., 13 being widows whose distressing circumstances rendered them eligible for the allowance of £16 a year. The number of pensioners, therefore, at the end of the year was 190, and the committee recommend the increase to-day of that number by the election of 18 from a list of 56 approved applicants, as set forth in the voting papers, making a total of 208 pensioners, the largest number of beneficiaries on the funds in receipt of annuities for life at any period in the history of the institution. The committee are keenly sensible of the pressing needs of the many applicants appealing for aid, and heartily wish they were justified in extending the benefits of the institution to a much larger number.

The anniversary festival dinner, held in June last, was a very great success, a large sum being raised on behalf of the funds. This result was mainly due to the well-deserved popularity of the treasurer (Harry J. Veitch, Esq.), who occupied the chair on the occasion, and whose convincing and able advocacy of the claims of the institution, his untiring zeal and devotion to its cause, met with so ready and gratifying a response from all parts of the United Kingdom, in consequence of which a much-needed further sum of £1,000 has been added to the Victorian Era Fund. The committee tender to Mr. Veitch their most grateful thanks for his services and liberality on this, as on all other occasions in connection with the cause. They further desire to place on record their deep sense of indebtedness to Mr. Veitch for his kindness and generosity in compiling and issuing, at his own expense, a "History of the Institution," which has already proved of much benefit in creating and sustaining interest in the work. The committee have also to express their sincere thanks to those gentlemen who acted as stewards and collectors in connection with the festival, to the donors of fruit and flowers, to Mr. James Hudson for superintending the decoration of the tables, to the horticultural Press for its valued gratuitous services, and to other helpers in all parts of the country, whose kind and practical aid is sincerely appreciated. The committee have to report the receipt, with grateful thanks, of a legacy of £100 from the late Mr. Herbst of Richmond, who for many years was a warm supporter of the institution. The several auxiliaries have again proved of much value as adjuncts to the work, and the committee most gratefully thank the honorary treasurers and secretaries, to whose exertions the success attained is mainly due.

Acknowledgment is also made, and sincere thanks tendered, to the Hurst and Son Musical Society (Edward Sherwood, Esq., President) for their kindness in allocating the proceeds of a dramatic performance given on behalf of the funds; to Mr. A. J. Brown of Chertsey; and to the Gardeners' Mutual Improvement Society at Altrincham, for organising successful concerts in the same cause. The committee would also refer to the kindness of Arthur W. Sutton, Esq., in contributing the sum of £20 to pay a year's pension to W. Smith, the highest unsuccessful candidate at the last election, whose case was of a most necessitous character. This candidate has recently died, but the help afforded by Mr. Sutton's timely generosity was a source of much comfort to him. Efficient aid in making the claims of the institution more widely known was rendered by Leonard Sutton, Esq., who gave a handsome donation expressly for that purpose with very gratifying results. The committee offer these gentlemen their most cordial thanks.

The Victorian Era Fund and the Good Samaritan Fund still continue to be the means of providing much-needed benefits. The committee have been able during the past year to distribute from the first named fund the sum of £159 2s. to the unsuccessful candidates at the last election who had formerly been subscribers in amounts proportionate to the length of time they had subscribed, and £90 has been given from the latter fund to numerous applicants, whether subscribers or not, who were found to be in urgent want of temporary assistance. The committee cannot emphasise too strongly the value and usefulness of these two funds, from the one they are enabled to help the "waiting" candidate, who, but for its aid, would receive no assistance until elected on the permanent funds, and from the other they are able to bestow gratuities in cases of emergency and need. It is a matter for thankfulness, as already mentioned, that the committee have been able to add £1,000 to the capital of the Victorian Era Fund, thus increasing its annual income and providing a larger sum for yearly distribution. The committee, with very great pleasure, draw attention to the magnificent gift of £500 from N. N. Sherwood, Esq. (trustee),

for the purpose of founding a pension to be called the May Sherwood Campbell Widow's Pension. The committee most gratefully thank Mr. Sherwood for his benefaction and for this further proof of his continued practical sympathy in the work by specially providing for a widow's declining years.

As in previous reports, the committee have again to deplore the loss, through death, of many staunch friends and supporters in the past year. Foremost amongst them may be mentioned the Very Rev. the Dean of Rochester and Mr. S. Osborn. Dean Hole had been associated with the institution for many years. He presided at the anniversary festival in 1872, and had often been present at subsequent festivals, making eloquent and touching appeals on its behalf. In season and out of season he was ever ready to evince his sympathies with the work. His loss will be keenly felt, and his kind and valued services will ever be gratefully remembered. Mr. Osborn had been a member of the committee of management since 1886, and was a regular attendant at its meetings; a practical gardener himself, and one who had for so long taken an active part in the affairs of the institution, his experience and opinions were much valued by his colleagues, by whom he will be greatly missed. The committee are glad to be able to announce that the Duke of Westminster has kindly consented to preside at the sixty-seventh anniversary festival dinner, to take place on June 16 next, at the Whitehall Rooms, Hôtel Metropole. They trust His Grace will receive a large measure of support on the occasion, and that the festival will prove as successful on behalf of the institution as those hitherto held. In conclusion, the committee earnestly solicit increased support to their work. At the close of to-day's election there will be thirty-five applicants left on the list who are appealing for permanent aid, some of whom are blind. To assist them an additional income is required, and, whilst not lacking in thankfulness for the means placed at their disposal in the past, the committee again plead for renewed effort, so that with a larger income they may feel warranted in extending the benevolence of this national horticultural charity to a greater number of those who "justly lay claim to its help."

Mr. Harry Veitch, in moving the adoption of the report, said it was the longest they had ever had. The work of the institution increased every year, therefore the report was necessarily larger also. He thought it was the most satisfactory ever presented. They were asking the subscribers to put six more pensioners on the fund this year than last year. The correspondence had increased enormously, yet they had not had any more assistance in the secretary's office. The auditors had stated that the books were exceedingly well kept. He thought much praise was due to Mr. Ingram for his hard work. Their institution was never more popular than to-day. The committee were asking for twenty pensioners to be put on the funds instead of eighteen; one pensioner had died, and the other had been removed to an asylum. Mr. Veitch referred in grateful terms to Mr. Sherwood's munificent gift of £500 to form the May Sherwood Campbell Widow's Pension. The interest on this amount will be given annually to the widow who is highest on the poll of unsuccessful candidates. The Victorian Era Fund and the Good Samaritan Fund, Mr. Veitch said, continued to give great benefit to distressed gardeners. He instanced a case of the daughter, now living in France, of a once well-known gardener, who had been most grateful for the timely help received from the Good Samaritan Fund. The Victorian Era Fund is also greatly appreciated; the interest on its accumulated funds is divided annually among the unsuccessful candidates. Mr. Veitch pointed out how urgent was the need for more funds, for no less than forty-seven of the candidates at the present election were subscribers to the institution. This was pointed to as evidence of the necessity for altering the rules a few years ago. It would soon have become impossible—as, indeed, it now had—to put on without election all subscribers of so many years' standing. Nearly £3,300 a year was now paid away in pensions. The chairman referred to the valuable work done by the auxiliaries; each was doing its utmost for the welfare of the institution. The Reading branch had collected no less than £129 10s. during the past year. He formally moved the adoption of the report and the statement of accounts.

Mr. Alderson seconded the resolution, which was carried *mem. con.*

Mr. A. W. Sutton moved "That Mr. Harry J. Veitch be re-elected treasurer of the institution, and that the best thanks of this meeting be accorded him for his services." He was sure they had never had a better treasurer, and no other London institution could have a better one. Mr. Sutton pointed out that the success of the institution, as the report mentioned, was largely due to the influence and popularity of Mr. Veitch. Mr. Sutton said it was a great pleasure to them to know that the Reading branch contribution headed the list of the auxiliaries. They owed its origin to the treasurer, who suggested its inception and largely helped to start it.

Mr. George Monro, who seconded the resolution, endorsed Mr. Sutton's words. They appreciated Mr. Veitch's work more every year. The motion was passed unanimously.

Mr. Arthur Sutton then asked, since the person to whom his gift of £20 was given last year no longer needed it, that it might be given this year to one of the unsuccessful candidates who was blind.

Dr. Masters proposed that Mr. G. J. Ingram be re-elected secretary. He also testified to the usefulness of the Good Samaritan Fund. Mr. Seegar seconded this resolution, which was passed without dissent. The retiring members of the committee were re-elected, and Mr. George Woodward was elected in place of Mr. Osborn (deceased), and Mr. Edward Sherwood in place of Mr. N. N. Sherwood (retired).

Mr. Seegar proposed that Messrs. Manning, Swift, and Willard be re-elected auditors and thanked for their services. Carried. The arbitrators were then re-elected. Messrs. E. G. Monro and B. J. Monro, on the proposition of Mr. Alderson, seconded by Mr. Seegar, were elected scrutineers of the ballot.

RESULT OF THE POLL.

The following are the names of the successful candidates. The number of votes each received is given: Edwin Williams, 4,566; Ellen Benbow, 3,976; Louisa S. Paget, 3,624; John Johnston, 3,562; Henry J. Thornton, 3,528; Anna M. Smith, 3,509; Eliza Allward, 3,285; Duncan Brown, 3,056; Anne Page, 3,047; Peter Dixon, 2,984; George Heywood, 2,881; Charles Harris, 2,860; George Cann, 2,856; John Huddy, 2,765; William Odlin, 2,734; William Pellett, 2,586; Samuel Garland, 2,544; Thomas Wynne, 2,449; Frederick E. Lee, 2,396; and Benjamin Hawkins, 2,279.

In addition to these Mary A. Plummer, with 2,165 votes, was selected to benefit from Mr. Sherwood's May Sherwood Campbell Widows' Fund; James Port, with 1,662, received the £20 given by Mr. Arthur Sutton; John Bradberry, with 851, and George Boothroyde, with 1,097 votes, were placed on the funds by the committee.

BALANCE-SHEET, 1904.

To balance	£1,027 16 4
" amount on deposit	3,265 10 0
" annual subscriptions	£1,653 0 6
" donations at, and in consequence of, festival dinner, including collecting cards	2,915 13 10
" special donations, N. Sherwood, Esq.	500 0 0
" legacy, the late H. Herbst, Esq.	100 0 0
" return of income tax	36 7 7
" advertisement in annual report	46 18 6
" dividends and interest	865 3 6
	<hr/>
	6,117 3 11

By pensions and gratuities £3,703 18 8

" expenses of annual meeting and election	12 16 6
" rent, cleaning, firing, lighting, &c., including salaries of secretary and clerk	516 7 5
" printing, including annual report and polling papers	114 7 2
" stationery, including cheque books	25 3 5
" advertisement in Fry's Charities	3 3 0
" festival dinner expenses	43 17 9
" postages, including annual reports, polling papers, &c.	57 2 0
" travelling expenses	4 19 10
" carriage, telegrams, insurance, and incidental expenses	14 10 11
" bank charges	0 3 3
	<hr/>
	263 7 4

" amount invested and transferred to the Victorian Era Fund	1,000 0 0
" amount invested (N. Sherwood, Esq.'s special donation)	500 0 0
	<hr/>
	1,500 0 0

Placed on deposit, including legacy balance with treasurer	1,046 6 7
Balance with secretary	2 3 9
	<hr/>
	1,048 10 4

£10,410 10 3

We, the auditors of the Gardeners' Royal Benevolent Institution, have this day examined the books, together with the bankers' certificate of securities deposited with them, and found everything correct. We also wish to state that the books are exceedingly well kept.

(Signed) THOMAS MANNING.

T. SWIFT.

J. WILLARD.

January 17, 1905.

VICTORIAN ERA FUND, 1904.

To balance, December 31, 1903	£140 19 1
" donations	£67 15 0
" dividends	125 7 9
" return of income tax	6 9 9
	<hr/>
	199 12 6

By gratuities	£159 2 0
" balance, December 31, 1904	181 9 7
	<hr/>
	£340 11 7

	<hr/>
	£340 11 7

GOOD SAMARITAN FUND, 1904.

To balance, December 31, 1903	£253 9 4
" donations, 1904	£19 1 0
" dividends	54 6 6
" return of income tax	2 16 4
	<hr/>
	76 3 10

By gratuities	£90 0 0
" balance December 31, 1904	239 13 2
	<hr/>
	£329 13 2

	<hr/>
	£329 13 2

Audited and found correct.

(Signed) THOMAS MANNING.

T. SWIFT.

J. WILLARD.

January 17, 1905.

THE ANNUAL SUPPER.

After the annual meeting the usual supper took place in the large dining-room of Covent Garden Hotel, and about sixty were present, amongst those we noticed being Messrs. A. W. Sutton, Leonard Sutton, W. Atkinson, E. A. White, William Sherwood, H. Hicks, Alfred Watkins, G. Monro, E. G. Monro, B. Monro, C. E. Oaman, E. T. Cook, S. Segar, Owen Thomas, H. W. Nutting, M. Alderson, Swift, and C. Cox. The chair was taken by Mr. Edward Sherwood, and the occasion was a memorable one. Mr. Sherwood is the youngest chairman who has occupied so honourable a position, and everyone present felt that the great interest that has always been shown by his father in the institution, and we may say in all gardening charities, will be continued in the same sincere way by the son.

After the usual loyal toasts the chairman proposed "Continued Success to the Institution," and in doing so paid a warm tribute to Mr. Harry Veitch, to whom the institution owes a debt of deep gratitude. His absence that evening was felt by all in the room, especially as it was due to ill-health. Though present in the afternoon at the annual meeting, the doctor forbade his attendance at the dinner in the evening. The chairman reminded those present that sixty-six years ago their institution was founded in rooms not far from where they were sitting, and now they had a reserve fund of £33,000, which he hoped might one day be doubled. He thought more might be accomplished in raising funds through entertainments, and referred to the efforts of the musical society connected with his own firm, a sum of £50 having resulted from the performance of the delightful musical play "In Cyderland," which was performed a few weeks ago. Mr. Sherwood read a kindly letter from his father. In it the names of many men who were present when he took the chair thirty-six years ago were mentioned. The letter was a message of goodwill to the meeting, and was much appreciated.

In the regrettable absence of Mr. Veitch, this toast was ably responded to by Mr. Arthur Sutton, who first of all deplored the absence of the treasurer and the reason of it, and mentioned Mr. Sherwood's gift of £500, which will be devoted to the May Sherwood Campbell Widows' Fund, the interest on this sum going to the support of the widow who has polled the largest number of votes next to those elected. The name of the fund will always keep in mind the little grand-daughter of Mr. N. Sherwood. Mr. Sutton spoke also of other matters, but these are dealt with in the report of the annual meeting. We must not forget his allusion to the importance of the auxiliary societies; over £100, for example, was raised at Reading last year for the institution.

The toast of "The Committee, Honorary Officers, and Country Friends" was proposed by Mr. Hicks, whose interest in the institution is well known. He alluded to the devotion of the committee, a committee composed of business men; to the work of this great gardening charity, and congratulated the institution on the election of Mr. E. Sherwood, the chairman of the evening, to a place on that managing body. Those who responded were Mr. George Monro and Mr. W. Atkinson. The former, in a pithy speech, mentioned that he had been for over thirty years a member of the committee, and alluded to the economy practised in managing the institution, the expenses not being 5 per cent. of the receipts. Mr. Monro paid a warm tribute to Mr. Veitch and the fact that last year—by no means a good one for collecting subscriptions—constituted a record. He referred to the splendid services of the secretary, Mr. G. J. Ingram, and the great usefulness of the Good Samaritan and Victorian Era Funds. Twenty-four fresh pensioners had been placed on the funds, which was also a record, and one was elected through the munificence of Mr. Arthur Sutton. Mr. Atkinson said that those in the provinces, and especially in the North, were not forgetful of the Gardeners' Royal Benevolent Institution, but distance from London prevented his attendance as a member of the committee as often as those residing nearer London.

The next toast was that of "The Chairman," which was proposed by Mr. Atkinson in a delightful speech. Reference was made to Mr. Edward Sherwood's father, and his devotion to the institution over many years, and he stated that all present that evening must be proud that the son was following the footsteps of so worthy a sire. The name of Sherwood was renowned in the world of horticulture, and their chairman that night was known not alone for his interest in the charities and organisations which his father loved, but as a young man of great business ability. This toast was received with applause.

Mr. Sherwood on rising received a great ovation. He thanked heartily his friend Mr. Atkinson for the kind words he had spoken, and said that when he visited the provinces, and the North especially, he always received the warmest welcome. The many happy days he had spent there would always remain a pleasant memory.

The secretary (Mr. Ingram) was rapturously received. In a carefully-considered speech he alluded to the chairman, Mr. Harry Veitch, and to the increasing work of the society.

It seems but yesterday that Mr. Ingram was appointed to the post he so honourably fills, but fourteen years have elapsed since that appointment, and it is in no small measure due to Mr. Ingram's tact and earnestness that the institution has prospered.

We have only alluded briefly to the speeches, as these are in a measure a reflection of those delivered at the annual meeting, but we can say this—that there have been few pleasanter annual suppers of the institution, and this meeting together of what is practically the committee is always an agreeable function.

The music was excellent, and supplied by Miss Marion Icton, who sang delightfully, Mr. Schartau, Mr. Miles, who played the harp and sang with his usual success, and Mr. Coyle (tenor).

NATIONAL CHRYSANTHEMUM SOCIETY.

ON Monday, the 16th inst., the executive committee of the above society held a meeting at Carr's Restaurant, Strand, when Mr. Thomas Bevan occupied the chair. Mr. Gerald Dean, in the absence of his father, whose indisposition still prevents his attending the meetings, read the minutes and correspondence and performed the secretarial duties. It was announced that the Crystal Palace authorities had agreed to the dates of the exhibitions of the National Chrysanthemum Society as fixed at a former meeting.

The draft annual report was submitted for approval, and also the balance-sheet and accounts for the past year, from which we gather that the society still maintains its foremost position among special societies, and that the exhibitions last year were highly satisfactory. The floral committee has awarded twenty first-class certificates to novelties, and will hold in 1905 the same number of meetings. The reserve fund consists of £117 16s. 9d., and the total receipts, including the balance brought forward from last year, amount to nearly £800. Fuller details, however, will appear when these documents are submitted to the annual general meeting.

In reference to the proposed conference to be held in connexion with the October show the sub-committee appointed to arrange the matter presented the report, which was agreed to. The meeting will take place at 3.30 p.m. on the first day of the show at the Crystal Palace. The papers read will be printed in the society's schedule, and the sum to be expended has been limited to the barest needs. As the result of the committee's recommendations Mr. C. H. Curtis has been appointed secretary to the conference committee, and the following are the subjects to be dealt with: "Garden Chrysanthemums," by Mr. D. B. Crane; "History of Early Chrysanthemums," by Mr. Harman Payne; "Chrysanthemums for Town Gardens," by Mr. E. Hawes and Mr. J. W. Moorman; "Decorative Chrysanthemums," by Mr. George Gordon; and "Early Chrysanthemums for Market," by Mr. Eric Such.

The report of the market exhibition committee was promised for a subsequent meeting. The subject of a registration department for novelties was finally disposed of, a proper notice for insertion in the public Press being agreed upon, and the form settled for the use of distributors of new seedlings.

ROYAL CALEDONIAN HORTICULTURAL SOCIETY.

THE annual general meeting of the members of the Royal Caledonian Horticultural Society was held in Dowell's Rooms, George Street, Edinburgh, on the 11th inst. Mr. W. H. Massie, one of the vice-presidents, occupied the chair. The report of the council, which was read by Mr. P. Murray Thomson, the secretary and treasurer, was one of the most satisfactory for several years, it being mentioned that there had been an accession of eighteen 10s. 6d. members and sixty-three 5s. members to set off against a loss of thirteen 21s. members. Reference was also made to the forthcoming international show, the arrangements for which are progressing favourably. A full prize list will be issued shortly, which will contain many new features. The silver cup, presented by His Majesty the King, is to be offered for the best exhibit in the fruit classes. It is the intention of the council to issue papers on horticultural subjects. The accounts presented were also of a favourable character, the excess of income for the year amounting to about £213. The report was adopted, after some criticism by Mr. J. Anderson, regarding the form in which the accounts were stated, and which Mr. Murray Thomson said he would consult the auditor about. The office-bearers were appointed to fill vacancies, as recommended by the council, Lord Balfour of Burleigh being again appointed to the presidency, and Mr. C. W. Cowan, Dalhousie Castle, a vice-president. The vacancies in the council were then filled as nominated by the council. The chairman appealed to the members present to use every effort to make the international show a great success. Mr. R. V. Mather, of Messrs. Laing and Mather, Kelso, raised the question of a greater share of the management of the society being allotted to members outside the Edinburgh district, but the chairman pointed out that it was necessary to have the council composed of those who could attend its meetings, and the subject dropped.

SOCIETE FRANCAISE D'HORTICULTURE DE LONDRES.

THE members of the above society celebrated their sixteenth anniversary on Saturday, the 14th inst., at the Café Royal, Regent Street, when Mr. Philippe de Vilmorin occupied the chair. There was a large and brilliant gathering, far surpassing anything in the past history of the society. Many well-known representatives of English horticulture, both amateur and professional, were present, the National Chrysanthemum Society being strongly represented by its officers and members of committee.

After the toasts of "The President of the French Republic" and "The King," the chairman paid a tribute to the energy and devotion of Mr. George Schneider, the president of the society, for the hearty manner in which he interested himself in the welfare of his young fellow countrymen. The thanks of the French were particularly due to the founders of the society—Messrs. Martinet, Villard, and Schneider—who, sixteen years ago, first conceived the idea of forming it. The work had been ably carried on, and with the help of English friends and the untiring devotion of Mr. Schneider it had now become a society of leading importance. Its value was recognised in France, and he was the bearer of a message from the mother society, viz., the National Horticultural Society of France, wishing the French gardeners in England a happy new year, and also long life and continued prosperity to their most useful society. He would also pay a tribute to the nation who accorded them its hospitality in a spirit of liberality not to be found elsewhere.

Mr. George Schneider replied, thanking the chairman for his kind words, and expressing pleasure that so many

English friends interested in their society were present to welcome their chairman, who came from so illustrious a family. He begged M. de Vilmorin to take back to Paris their gratitude for the kindly remembrance and message he had brought. Letters were read from Dr. Masters, M. Geoffroy, Mr. Harry Veitch, Mr. William Robinson, and Mr. George Nicholson, all of whom, while expressing their warmest interest in the society, were prevented from various causes from being present. There were many indications of practical sympathy from English friends, and he would ask them all to drink to the prosperity of English horticulture.

Mr. Harman Payne responded, saying that Chrysanthemum growers had every reason to be grateful to the French raisers for the many improvements that had been made in the golden flower from the Far East, and that was one reason why so many of his colleagues of the National Chrysanthemum Society were present. Between the two societies there has always existed the most cordial relations. Drawing attention to the great work done by the Vilmorins during the past 100 years or more in every branch of horticulture, Mr. Payne congratulated the society on the honour it enjoyed that evening in having so distinguished a member of French horticulture in the presidential chair, and asked the company to drink to the continued prosperity of L'Horticulture Française.

The chairman replied, and M. Huguenet, the editor of *La Chronique*, spoke concerning the pleasure gardening, but particularly horticulture, had given him in many distant parts of the world. "The English Horticultural Press" was proposed by M. Marius Serra, and responded to by Mr. George Gordon.

M. Séve, the Belgian Consul-General, referred to his country as a classic land of horticulture, and acknowledged with grateful thanks the benefit which many of his fellow countrymen had received from the society during their temporary stay in England.

On the part of the young members an interesting presentation of a spirit stand was made to Mr. Schneider, who returned thanks. Music, songs, and recitations by various friends enlivened the proceedings. The gathering was in every sense of the word a most successful one.

KIRKBEAN AND DISTRICT HORTICULTURAL SOCIETY.

THE annual meeting of this society was held in the Jubilee Hall, Carsethorn, N.B., on the 14th inst., the chair being occupied by Mr. R. Major, one of the vice-presidents. The treasurer's and secretary's reports were of a generally satisfactory character, the show having been the best ever held by the society, although the regretted death of one of the chief subscribers and of one or two others had caused a reduction in the credit balance, which now stands at £20 16s. 5d. The following office-bearers were appointed: President, Mr. Robert Hunter; vice-presidents, Mr. James Dickson and Mr. James Weir; treasurer, Mr. John Gibson. Mr. S. Annot, who has been secretary since the formation of the society six years ago, being about to leave the district, a committee was appointed to secure a successor, Mr. J. Harris, his assistant, being willing to continue in that capacity to the new secretary, but not to undertake the whole of the duties.

KIRKCUDBRIGHT HORTICULTURAL SOCIETY.

THE annual meeting of this society was held on the evening of the 9th inst., Mr. E. McConchie presiding. The accounts for the past year were submitted by Mr. J. Gibson, secretary and treasurer, and were of a gratifying character, the society being in a good financial position. Office-bearers, consisting of patronesses, patrons, president, vice-president, committee of management, and visiting committee, were elected, and Mr. John Halliday was appointed secretary and Mr. J. Gibson treasurer. The annual show was fixed for July 29.

CROYDON AND DISTRICT HORTICULTURAL SOCIETY. ANNUAL REPORT.

THE following was read at the general meeting held recently:

In presenting their fifth annual report and balance sheet, the committee desire to express their appreciation of the many services rendered by friends, who have lent their support and encouragement during the past year. As in previous years, the financial condition of the society is perfectly sound, being able to carry forward a balance for the ensuing year. Lectures and papers on horticultural subjects have been given at nineteen meetings, and in each instance the subject under discussion has proved very instructive to the members present. We are happy to say the spring exhibition on April 20 was a marked success. The exhibits were more numerous, and a greater diversion of varieties. Many visitors attended throughout the day. We owe a deep debt of gratitude to the exhibitors for making the exhibition a success. On August 24 the annual outing took place, a visit being paid to the residence of Mr. J. Pierpont Morgan, Dover House, Roehampton. The gardens were inspected, and afterwards a cricket match with the garden staff finished a pleasant and enjoyable day. Two essay competitions were promoted for the members during the past year, viz., "Pruning and Training Hardy Fruit Trees" and "Birds of our Garden," the successful essayists being Messrs. T. W. Briscoe and W. A. Cook, who gained first and second prizes respectively for the first-mentioned competition, and like awards are made to Messrs. J. Sugden and H. Peckham in the second competition. We wish it to be known by all members that the society is affiliated to the Royal Horticultural Society, and amongst the privileges derived therefrom is the use of two tickets available for any of the Royal Horticultural Society's meetings, and these are at the disposal of any of our members. The society is accomplishing useful work, and to further its aims hearty co-operation of the members is solicited to make known the beneficial features to gardeners in this district.

Evesham Gardeners in France.—

Some of the market gardeners in the Evesham district journeyed to Paris last week for the purpose of studying the methods of French growers, and especially with reference to the methods of forcing Lettuces and other vegetables. Probably as a result of this visit the value of glass accommodation will be more fully recognised at Evesham, and the local growers will be able to compete more favourably with foreign growers so far as early vegetables are concerned. As we pointed out in our leading article in THE GARDEN for December 3 last, the Evesham fruit growers have combined with very great advantage to themselves, and it is probable that much good will result from the enterprise of those concerned with vegetable culture.

A Scottish gardener injured.—

Among those severely injured in the accident on the Midland Railway near Cudworth on January 19 was a young Scottish gardener, Mr. William Graham, who has for some time been in the employment of Messrs. William Thomson and Sons, Limited, Clovenfords, N.B. He was on his way South to take up an appointment he had secured as a departmental foreman at Swanley College. Mr. Graham is the son of Mr. John Graham, gardener, Edenbain Place, King Street, Broughty Ferry, and, from the information received by his parents, was suffering from concussion and shock. His early recovery is confidently hoped for.

Development of new breeds of Potatoes.—

At a meeting of the Glasgow and West of Scotland Agricultural Discussion Society, held on January 18, a paper was read by Mr. Archibald Findlay, Mairland, on "The Development of New Breeds of Potatoes." Mr. W. Reid occupied the chair. The subject is one upon which few men are so well qualified to speak from practical knowledge as Mr. Findlay, and he treated it in a concise yet interesting manner, tracing the history of the Potato from its first introduction, and passing on to detail the methods at present in use in the production of new varieties. Details were given of such noteworthy varieties as Up-to-Date, of which Mr. Findlay told the history, and which he raised some eighteen years ago, and introduced to commerce six years later. The paper was much enjoyed, and gave rise to an interesting discussion, joined in by a number of those present. Mr. Findlay received a warm vote of thanks for the paper.

Lecture on Roses.—Under the auspices of the Rattray School Board, the Horticultural Society has organised a course of lectures on horticultural subjects, the first of which was delivered on the evening of January 18 before a large attendance.

The Pyracantha referred to in THE GARDEN of last week's issue, page 35, was planted more than eight years ago by a previous gardener, Mr. Allen, who established this plant by careful culture. The present gardener, Mr. Brown, has only had charge of this plant one season, so that Mr. Cornhill is hardly correct when he gives the credit of good culture to the present gardener. The correct name of the plant in question is *Crataegus Pyracantha Lælandii*.—B. S., *Byfleet*.

The "Hurst and Son" Musical Society.—

This society held its annual concert on the 18th inst., when a large gathering of friends were present. The chair was occupied by Mr. Edward Sherwood. During the evening the orchestra gave three selections, and played with remarkable skill, especially the "Dances from Henry VIII." Mr. Bernard Barker acted as accompanist during the evening. A vote of thanks to the chairman and the National Anthem brought to a close one of the most successful concerts yet given by this society. The arrangements were carried out under the direction of the hon. secretary, Mr. F. Washington, and the concert committee. The programme was excellent throughout.

Anchusa italica Dropmore variety.

The note on this plant in your issue for January 14 last has brought numerous enquiries, many more than I can find time to reply to. May I ask you to state in THE GARDEN that the plant in question will be for sale through the trade in the spring of 1906.—CHARLES PAGE, *Dropmore Gardens, Bucks.*

THE GARDEN

No. 1733.—VOL. LXVII.

FEBRUARY 4, 1905.

EVESHAM GARDENERS AND WINTER SALADS.

SOME time ago we drew attention to the fact that the market gardeners of the Vale of Evesham had successfully organised and established an association for the more advantageous disposal of their produce to the public direct than by distributing it in the usual way by means of agents. There is no doubt that this is a very important move in the direction of a quicker and therefore fresher and better supply of perishable goods to the public, and a more liberal return to the grower. The Evesham growers, so famed for their market gardening, are enterprising men. We learn from a letter in *The Times* that a party of thirty gardeners and others interested recently paid a visit to France in order to inform themselves of the best French methods of producing winter salads, such as those imported in such immense quantities into this country every year, and especially during January, February, and March. We learn that during those months the gardeners of Paris import into England from 4,000 to 5,000 crates of early Lettuce and 500 crates of early Carrots daily. The visit was arranged with a view to an enquiry into the particular conditions under which the French industry is carried on. The letter goes on to say that the facts ascertained were not only interesting but most encouraging. An inspection of a number of market gardens just outside the fortifications on the south-east of Paris (where they extend for a total of nearly eight miles) has shown that the success of the French growers is due less to any climatic advantage than to a very practical system of cultivation under glass on what are in effect forcing-beds, to which, however, no artificial heat is applied. At first sight a Paris market garden presents the appearance of from $1\frac{1}{2}$ acres to 2 acres or more of land almost covered by ranges of glass frames standing about a foot above the soil, while over each is a straw mat which can be readily rolled up during the day when the temperature allows. These frames are supplemented by hundreds of bell-shaped glasses known as "cloches." Under these the Lettuces are grown, various transplantings taking place according to growth. Frames and cloches alike stand on beds made up of rotten horse manure, with a certain proportion of fresh manure as a foundation—fresh manure being at the same time piled up alongside the frames

and around the cloches to protect them from frost. Some of the gardens seem to consist almost entirely of this rotten manure.

In the case of Lettuce there are three successive sowings, beginning in August, the Lettuce being ready for market in six weeks, and the supplies continue until April. The varieties grown are the Cos and Cabbage Lettuce, one of the former and three or four of the latter being planted under each cloche, with larger quantities in the frames. The early Carrots and Turnips are grown under like conditions, and there is every reason to believe that the business is a most lucrative one. The opinion formed by the visitors was that, while not every part of England would allow of the growing of early vegetables according to the French methods, yet there were no climatic conditions which would prevent the adoption of that method in the favoured district of Evesham, and especially on the warm banks of the Longdon Hill and those facing the south. Evesham, with its warm, moist climate and encircling hills, was, in fact, regarded as still better adapted to such an enterprise than the exposed environs of Paris. The only difficulty was in procuring the manure at a sufficiently low price. Assuming, however, that this difficulty could be surmounted, the general conclusion arrived at was that early salad Lettuce for the English markets could very well be grown with equal success and economy in the Vale of Evesham.

We shall follow this practical and public-spirited experiment of the growers of Evesham with great interest. If it proves to be the success anticipated it will open out a new and profitable channel of industry to a calling which we fear has been none too remunerative of late years. If success is assured in this direction by the gardeners of Evesham then the market gardeners in the environs of London should be doubly successful, because, in the first place, they enjoy a climate equally as warm, if not warmer, than the climate of that favoured part of Worcestershire, and the rainfall is nearly as great. As regards the chief factor in the success of the Parisian gardener with winter salads, namely, the unlimited supply of manure, London gardeners are even more favourably placed than their French neighbours.

One cause of the failure of modern gardeners in the production of good winter salads is, we think, in their using manure too sparingly for these very succulent crops. In this matter our forefathers were ahead of us. Speaking the other day to a London market gardener, he

mentioned that many years ago, upon taking to a new market garden, he was informed that the late tenant signed an agreement never to add less than forty tons of manure to the acre each year, and asked if he was prepared to sign a similar document. His reply, we think, must have surprised the agent, as it would most people who did not know how freely manure was applied to the land round London years ago. His reply was, "Yes, you may make it a hundred and forty tons if you like, and I will take the land." Ultimate success proved that the end justified the means. When used with such liberality the manure generates a mild and continuous heat, creating conditions favourable to activity of growth at that dormant season. It is on the subject of light that we think the French will be found to have an advantage. This is essential, and no doubt our share round London of this is less than that enjoyed by the Paris growers. Our winter fogs, too, are so destructive to growth of all kinds, especially to such tender plants as those under notice; these the French are comparatively free from. However, if by the introduction of better methods of culture and the more extended use of glass in the cultivation of winter salads in England greater success is attained, the gardeners of the Vale of Evesham will have rendered to market growers and to the public a most useful and far-reaching service for good.

THE BEAUTY AND VALUE OF ANNUALS.

ONLY an annual! Again and again the expression is used, and it makes us doubt whether the debt of gratitude we owe to this fine class of flowering plants is recognised as it should be. The miracle of birth and rapid growth, the glory of form and colour, the mystery of fruition wrapped up in the small brown seed, these are all discounted for many a one by an undefined sense of rebellion against the short tenure of their life. To grow them, we say, is hardly worth while. Perhaps, if we go to the root of the matter, the secret of our discontent is an unworthy one. It may be indolence, a grudging of trouble which must recur with each returning spring. Or it may have been failure and then a lack of perseverance in trying again to conquer a difficulty. But experienced gardeners are far from underrating the value of annuals, and spare no pains to bring them to their utmost perfection of beauty.

For how much colour and fragrance should we not miss if we had only the slower growing plants to rely upon. And not colour and sweetness only, but what marvellous diversity

of form in flower and leaf and outline. A garden of annuals, though it is seldom met with, would be no mean thing to look at and possess. Let us endeavour to sum up some of the advantages of annuals.

After a season of alternate growing weather, with biting frosts, and, worse still, icy tearing south-easterly gales, as of late, there will be many gaps to fill in garden borders. Were it not for the abundance of suitable material with which we may provide ourselves to replace such disasters at short notice, we should sometimes be in sorry plight. And then, again, spring takes care of herself, and Mother Earth safely hides the early bulbs, and hardy flowers spring up, we scarcely know whence, in April and May. But when the Tulips and Daffodils, and the late Narcissi have faded, and the midsummer borders are losing the perennial glory of Roses and Pæonies and Larkspurs and Oriental Poppies, there comes a pause. If we have taken no thought, the garden begins to put on a worn, shabby look, as though it must needs rest. What would then fill the place of Sweet Peas and scented Mignonette, of the gorgeous Nasturtiums, and all the bright things, like Nemesis and Salpiglossis, Sweet Sultans and Marigolds, and a hundred more, which take up the running and keep the borders gay.

Our attention is much directed nowadays to the beauty and artistic effect of colour schemes in garden arrangements. This can be done, of course, to a certain extent by permanent planting. But there is no such thing, so to speak, as permanence in Nature. Beauty is for ever waxing—but it wanes. Our colour schemes would be fleeting indeed if we could not supplement and renew them with the rich harmonies of quick-growing yearlings. For amongst the many triumphs of horticulture may be counted the fixing of strains of colour of annual plants, which enables the grower to depend with certainty upon getting the exact tone he wishes to have from a named packet of seed. For masses of colour there are several half-hardy plants, which, sown early, will flower abundantly throughout the season, e.g., Verbenas and Lobelias and Petunias. The old plan of keeping Verbenas over the winter for the sake of obtaining cuttings and bringing them on quickly in heat has been superseded almost entirely by growing them from seed, and there is perhaps nothing more effective for a certain order of colour scheme than these brilliant flowers used as annuals in the pure shades which can now be obtained.

Late autumn, again, finds us trusting, in large measure, to annuals, such as the beautiful Nicotianas, the fine scarlet Alonsoa Warscewiczii, and Cosmos, which is no longer the despair of outdoor gardening.

The gardener who makes a right use of annual flowers possesses an advantage over the gardener who ignores their value. They are most useful for giving rich and bright colouring in the least possible time, and often may be used to fill a gap with great success that otherwise would have remained bare and unsightly. What can be more effective than a mass of *Linum grandiflorum rubrum*, its bright flowers on slender leafy stems making a sea of red and green, gently moving at every breeze?

Lastly, when all is over, and a night's cruel frost has left only blackened stems, we can give our annuals decent burial, and they leave no trace behind to worry or to sadden us, for we know that packed away safely in tiny coffers they have left us as a legacy germs of life which only await the reawakening moment to bless us with beauty and gladness once more in the years to come. Why, then, should we despise or think them not worth while to grow?

PRIZES FOR GARDENERS.

ANNUAL FLOWERS.

FIRST PRIZE of *Four Guineas*, a second prize of *Two Guineas*, a third prize of *One Guinea*, and a fourth prize of *Half-a-Guinea* are offered for the best answers to the following set of questions. This competition is open to all under gardeners, whether employed in private or public gardens or in nurseries. Head gardeners where not more than five men are kept may compete. This competition remains open until February 28. Answers must be addressed to the Editor of *THE GARDEN*, 3, Southampton Street, Strand, London, and marked "Competition."

QUESTIONS.

- I.—Name the best twelve varieties of tall, branching Stocks that are both free in growth for garden use, and that give the greatest quantity of long-stemmed blooms for cutting.
- II.—Name the best six annual Asters that are also both free in growth for garden use, and that give the greatest quantity of long-stemmed blooms for cutting.
- III.—Name six Sweet Peas the best for form; that is to say, with the wings outspread and rounded, not hooded and pointed at the top, also giving their colour.
- IV.—Name the best annuals, hardy or half-hardy, for massing, not less than 18 inches in height.
- V.—Which do you consider the most beautiful pure blue-flowered hardy annual (Sweet Peas excluded)?
- VI.—Name the best six hardy annuals to grow for cut flowers (Stocks and Asters excluded).
- VII.—Describe the best uses for hardy and half-hardy climbing annuals.
- VIII.—If you had to plant a shady border with annuals, name the six kinds you would use.
- IX.—If you were restricted to hardy annuals belonging to one natural order, say which order you would select, and give the names of the best species and varieties of hardy annuals contained in it.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

February 4.—French Horticultural Society of London's meeting.

February 6.—Mansfield Horticultural Society's meeting.

February 7.—Sevenoaks Horticultural Society's meeting.

February 8.—Sheffield Chrysanthemum Society's meeting.

February 10.—Royal Gardeners' Orphan Fund Annual Meeting.

February 14.—Royal Horticultural Society's Annual General Meeting.

Royal Horticultural Society.—The new Fellows elected at the general meeting held recently included the Countess of Portarlington, Lady Vaux, Sir George Mackenzie, the Hon. Mrs. C. Ponsonby, and the Hon. Henry Portman, and

the Isle of Wight Horticultural Association was also affiliated to the Royal Horticultural Society.

German methods of fruit preserving.—A lecture was recently given by the assistant secretary of the Royal Horticultural Society, Mr. Thomas E. Sedgwick, on the "German Methods of Fruit Preserving." The paper was illustrated by a series of the latest paring, coring, and rinsing machines and other labour-saving apparatus. After mentioning both the great care which the Germans took in every stage of their fruit preserving and the considerable literature which they had on that subject, the lecturer proceeded to describe the various methods of fruit preserving most in use in Germany. Drying or evaporation was first treated of, and a drying machine for household use, as perfected in the German fruit school at Geisenheim, was exhibited. The making of fruit pulp was next described, and the German systems of bottling and canning were fully dealt with. Some of the methods described were only intended for household use, whilst others were applicable to more generally commercial undertakings. The preservation of fruit was mainly intended to be used as a means for carrying over the surplus of one season to another time when such fruit is not obtainable in a fresh state, and it is regrettable that such large quantities of preserved fruits are annually imported, and often (as last year) much fresh fruit is allowed to go bad upon the ground. The lecturer remarked that, although the best fruit always fetches the highest price as a fresh fruit, the smaller and even slightly damaged fruit would yield a good return if treated as jam (which, by the way, is unknown in Germany) or by some of the other methods described. The preservation of fruit was also useful as a means for carrying over the surplus of one season to another, or of making a remunerative return out of a surplus crop like that of 1904. The formation of the National Fruit Growers' Association and of the National Fruit and Cider Institute, and the appointment of a Departmental Committee of Fruit Cultivation by the Board of Agriculture, showed that the importance of our fruit industry was rapidly becoming more recognised, and it was to be hoped that the time was not far distant when all the fruit, whether fresh or preserved, would be home or Colonial-grown. The subject of crystallisation was not treated of, firstly, because little fruit is as yet crystallised in Germany; and, secondly, as it was announced that Mr. C. Herman Senn had kindly undertaken to deliver a lecture before the society on December 5 on the subject of "The Crystallisation of Flowers and Fruit."

The Countess Spencer class of Sweet Peas.—In the "Sweet Pea Annual," published by the National Sweet Pea Society (just received), I notice that Countess Spencer is included under the heading "Pink Shades" in the classification of varieties. Countess Spencer is said to have an annoying habit of sporting, and certainly the seed sent out, for the first time, last year produced a considerable number of distinct colours. No doubt this is what is meant by sporting; but I fancy it would be more accurate to say that Countess Spencer has never been properly fixed, and will continue to sport for some years to come. If this is really the case, it seems unfortunate, to say the least of it, that Countess Spencer should have been recognised as a variety in the National Sweet Pea Society's colour classification before it could be depended on to come true from seed. It is well known by those who cross-fertilise Sweet Peas that a cross between two varieties will produce a considerable number of separate colours (three distinct colours frequently coming in the first year from the single pod of seed), and that, as a rule, it takes several years before any variety can be said to be properly fixed. I have no desire, of course, to disparage the Countess Spencer family of Sweet Peas, as I consider that there are some excellent varieties among its members, and I have already selected from these three plants of distinct colours (all having the pretty waved standard peculiar to this class of Sweet Peas), which I hope, in course of time, to be able to fix.—**HUGH ALDERSEY.**

Brighton Horticultural Society.—The following are the dates of the shows for the present year: Spring, April 11 and 12; summer, August 22 and 23; Chrysanthemum, November 7 and 8. The secretary is Mr. J. Thorpe, 53, Ship Street, Brighton.

Petunia Lord Courtenay.—In a paragraph under this heading I sent to you in November last I made it appear this attractive rose-coloured Petunia was a novelty of 1904. I am assured by Messrs. R. Veitch and Son of Exeter that it was distributed by them in 1899. If old Donald Beaton could have lived to this day he would have been gratified to find that his Shrubland Rose, which he raised when gardener at Shrubland Park, Needham Market, many years ago, had developed into so fine a variety as Lord Courtenay.—R. D.

Schizanthus wisetonensis.—This is a beautiful form of Schizanthus that should be grown in pots to have it in all its beauty, and it makes a fine decorative plant if the seeds be sown in the autumn and the plants grown on during the winter to bloom in early summer. A succession can be secured by sowing in early spring and growing on in pots. My experience of it in the open air teaches me that it is only in light sandy soil in an open, sunny spot that it can be expected to do well in the open. Well grown it makes charming bush-like specimens for conservatory decoration, as it blooms so abundantly.—R. D.

The fruit industry of Great Britain.—The Departmental Committee appointed by Lord Onslow to enquire into and report upon the fruit industry of Great Britain held sittings on the 17th and 18th ult. The following members were present: Mr. A. S. T. Griffith-Boscawen, M.P. (chairman), Colonel Long, M.P., Mr. C. W. Radcliffe-Cooke, Mr. Monro, Mr. Hodge, Mr. Vinson, Dr. Somerville, Mr. P. Spencer-Pickering, M.A., F.R.S., Rev. W. Wilks, and Mr. Ernest Garnsey (secretary). Evidence was taken from the following witnesses: Colonel Sir Herbert Jekyll, K.C.M.G., Assistant Secretary of the Board of Trade; Mr. Brooke-Hunt, Superintending Inspector of the Board of Agriculture and Fisheries; Mr. W. Chambers; and Sir Thomas Pink.

Some good Veronicas.—Of the numerous Veronicas thriving here none, I think, equals Simon Delaux, Epi Blanc, and Blue Gem (red, white, and blue) for continuous and late flowering. Large clumps of them are very effective. Unfortunately, they are not sufficiently hardy to withstand the rigours of our severe winters excepting in mild districts, but they are so easily propagated by cuttings in cold pits in the autumn and make good flowering plants the following year that they are well worth growing in that way. Neither are they to be despised as pot plants for the conservatory.—J. R., *North Wales*.

L'Entente Cordiale.—We are sure that both M. Philippe de Vilmorin and Mr. George Schneider must have been much impressed, on the occasion of the annual dinner of the French Horticultural Society on the 14th inst., at the large measure of support that that society received from the officers and members of the National Chrysanthemum Society, who were present in large numbers. If the *entente cordiale* is to be anything more substantial than a mere empty sentiment, it is only by Englishmen and Frenchmen meeting together and becoming more intimately connected with each other, in no matter what walk of life they may be occupied. Happily, horticulturists have long set the example on both sides of the Channel, and for many years past as individuals. But, collectively, little has been done except by the National Chrysanthemum Society, which has frequently supported many of the continental shows by sending a deputation whenever the opportunity has occurred. It is a notable fact that during the great International Exhibition of 1900 there was no other English society that attempted to make any display at the numerous periodical shows that were then held, or even to recognise the great undertaking by sending a deputation of its members. The same remark applies to the Jubilee show of the Royal Piedmont Horticultural Show in

Turin last May, where representatives of almost every leading European horticultural society were present. Insular self satisfaction may be carried to extremes by societies as well as by individuals, and those who practice it must not feel offended if they are paid back in their own coin. There may be before long opportunities for other English horticultural societies to hold out the hand of fellowship to our friends on the other side of the Channel. It is to be hoped that these opportunities will neither be ignored nor neglected, for if we wish to have friends we must show ourselves to be friendly.—C. H. P.

WINTER ACONITE.

O HERALD floweret, Aconite,
We hail thee with unfeigned delight;
Thou comest when the days grow long
And birds rehearse their matin song.
The Hazel trees merge in a grove,
To make for thee a bower of love;
And none the less their tender care
Because their arms are brown and bare.
For thee e'en frost shows tenderness,
While snowflakes melt in fond caress,
For thee rough winds, when night is nigh,
Do croon a drowsy lullaby.
Thrice welcome little Aconite,
Thrice welcome to our wearied sight.
Full well we know that winter drear
Will bid farewell now thou art here,

ELLEN COLLETT.

Apple Rosemary Russet.—In flavour this Apple is strongly suggestive of the ever-popular Ribston Pippin, and is little inferior to it. It is of medium size, conical, with a full eye, dull yellow, russet, and flushed with red. The flesh is firm, yellow, and deliciously flavoured. While being a good garden tree, it also has the advantage of thriving and bearing well under orchard culture. Here we have several trees growing in a very damp orchard, and so hardy is its constitution that this Apple rarely fails to bear a good crop. But I find that under the conditions stated the branches must be kept well thinned.—A. C. BARTLETT, *Pencarrow Gardens, Bodmin*.

NOVELISTS AND FLOWERS.

TOO often, alas! the novelist treading his way through the mazy paths of romance betrays his ignorance of botany, active and passive. Whatever he may know about human passions and their concomitant tragedies and comedies, he knows nothing of the flowers he uses to strew the paths of his lovers, or to decorate his similes. They are wonderful flowers, for they bloom at all times, and in all seasons, just as he wishes. They are always perfumed, and though they are repeatedly crushed against the aching heart of the love-lorn maiden, and often worn inside the coat of her adorer, they are afterwards found blooming in the lady's boudoir unfaded and unchanged. I own that if on opening a novel I find the lovely heroine gathering indiscriminately flowers that by no manner of means could be found in bloom at the same time, I close that work and return it to the library, for I have no use for it. Gardening is my fad, and, naturally, I resent any undue ignorance on the subject; but since to err is human, I can forgive a few mistakes, particularly when I know they are unintentional, but when actual misstatements are made, and a little science the false excuse, I feel something must be said on the subject. Among some of the latest novels one has come under my notice called the "Bridge of Life." It is written by a lady whose works I have read and admired. To review this work is neither my province nor my desire, and I intend

to touch only on one chapter, a chapter that is called "Shirley Poppies," and I must ask the reader's patience if I quote a few lines.

First of all, I must explain that though the authoress calls her book "a novel without a purpose," its subject treats on the vexed question of heredity. She, doubtless, does not wish to be answerable for the opinions expressed by her hero, but I think when such views are set forth it should be understood whether these erroneous statements are intentional, and who is responsible for them. In the chapter mentioned there is chronicled an interview between a certain Dr. Dorft, a Dr. Lamont, and a Dr. Grierson, the latter being a crank on the subject of heredity, and, as it turns out, a murderous crank to boot.

The scene is laid in the gardens of the Samaria Hospital, and Grierson speaks, in answer to a question from Dorft, as to Grierson's opinion on the possible suppression of heredity tendencies by influences of upbringing. He says: "I am as deeply convinced as I am of my own existence that the child can no more shake off the heritage of the parent than water can wash out the spots of the panther. Why has a blackbird got a yellow beak or a cockle a ribbed shell? Because its parents had one before it, and the unalterable law runs through the kingdoms of Nature. Look at those flowers over there. Do you know the history of the Shirley Poppy?" Dr. Dorft did not know it, no more, I fancy, did the authoress of "The Bridge of Life," for this is Dr. Grierson's answer. "Then you don't know that all the millions and billions of fantastically marked Poppies that brighten English gardens are the descendants of one single specimen! Among a patch of common scarlet Poppies somebody found one that showed the eccentricity of a few spots—a freak of Nature is the common definition—but we doctors know that every divergence from the normal means disease. The seeds of that Poppy were carefully sowed (*sic*), and the next season, among a crowd of normal flowers, produced five abnormal ones. In a few years more the 'new' Poppy was on the market, and our gardens decorated with the descendants of that one diseased individual, for in the flower world disease is quite as likely to make for beauty as ugliness. Now imagine that sick ancestor to have been a human ancestor, and ponder upon the amount of suffering he would have brought into the world—suffering instead of beauty."

I am not going to argue out this extremely far-fetched idea, or attempt to disprove Dr. Grierson's theory, but what I do object to is the incorrect account of the development of the Shirley Poppy. The Shirley Poppies are the most perfect, dainty, and delicately beautiful flowers ever evolved from one of the simple gifts of God by the patience of man. Their petals are of a texture so filmy and light that the wooing bee can destroy their bloom. To liken them to silk or satin is to compare them with the coarse and inferior fabrics of man's manufacture. The tints are the perfection of a heavenly colour scheme—the purest white, the roseate hues of dawn, the tints of sunset clouds deepening into richer shades of crimson, and the blending of these together in the exquisitely adjusted petals, and the delicate darker fibres of the seed vessel form a combination hardly to be found in any other of our annuals. The buds that burst from their enshrouding calyx of tender harmonious green are spangled with the morning dews, and crinkled like a web of silkworm's silk. As the breeze shakes their pendant heads they lift them up unto the Lord, and in a few

moments become perfect flowers, fragile—ephemeral, if you will—but lovely as such things always are. I have stood among my Shirley Poppies and from my grateful heart I have thanked the man, the clever, patient gardener, who evolved their beauties out of the wildling of the Cornfield, and gave us, not diseased abortions from a diseased and spotted parent, but drew forth greater beauty and strength and vigour from a fair mother.

Mr. Wilks of Shirley, when he walked, with the wide opened eyes of a true lover of flowers, through a neighbouring Cornfield saw among the scarlet wild Poppies a few of a more delicate shade—they were neither diseased nor spotted—and then with the love that is so strong in the heart of all flower worshippers, took these, and with infinite patience and care in the course of years, bestowed on us a gift we prize as much as though he had brought us a blue Orchid from the depths of some primeval forest. "This is an art which does mend Nature, change it rather, the art itself is Nature." As good gardeners let us not believe that we are only propagating disease and death—for that terrible creed would break many loving hearts—rather let us believe that from God-given beauty beauty comes—and from all living things a greater strength, a greater endurance, a truer perfection, that disease is but a phase, and death a transition state between life and reformation—so that our gardens, tilled by our own hands in simple faith, may be veritable paradises of increasing sweetness and health and beauty for all time. AUGUSTA DE LACY-LACY.

TREES AND SHRUBS.

COLOUR IN CONIFERS.

ALTHOUGH the majority of the cone-bearing and allied trees do not assume brilliant colouring in the autumn, yet those which do are sufficiently numerous and attractive to warrant more attention in this respect than they receive at present. Of the evergreen forms *Cryptomeria japonica* var. *elegans* is the brightest; during the autumn and winter months the exposed branches change in colour from their summer green to a bright bronzy red. In the moister parts of the country this tree rarely preserves the rigid pyramidal habit of the type, nor does it often attain a height of more than 20 feet to 30 feet, but it frequently branches near the ground into five or even more leaders, the central shoot growing somewhat faster than the others. For a couple of decades trees of this almost bushy habit are very striking, and especially so at the present season, when they have their winter colour. Sooner or later, in the west, the weight of their abundant branches and foliage becomes too much, and this *Cryptomeria* "sprawls" in a most ungainly fashion. Trees growing in those counties where the rainfall is comparatively slight rarely have this much-branched and dense foliaged habit, so I am inclined to the opinion that the copious rainfall and frequent heavy deposits of dew are largely responsible for this difference of habit.

RETINISPORAS.—Many of the *Retinisporas* change colour in the autumn. Perhaps the most striking in this respect is *R. ericoides*, the foliage of which often becomes reddish purple, and at times violet. During favourable seasons the three year old branchlets of *Cunninghamia sinensis* before falling become vivid scarlet. These branchlets are most decorative, and the colour is heightened by artificial light. The light yellow *Thuya plicata* (*T. gigantea*) var. *aurea* becomes much deeper and richer in colour.

DECIDUOUS CONIFERS.—Turning to those which shed their foliage the Larches claim first attention. The common species (*Larix europæa*), with "its spires of gold," is so well known and greatly

admired that it needs no eulogy from me. But beautiful as it is its glory is surpassed by the Chinese Larch (*Pseudolarix Kämpferi*). The pale green leaves are much larger than those of the European Larch, and are more persistent after they change colour. At this stage the Golden Larch is the most beautiful of all the group *Conifere*; the rich gold of the leaves and the light brown bark form a striking picture. For immediate effect several trees of varying sizes should be planted in a group, choosing a sheltered, but not shady spot. The Japanese Larch (*L. leptolepis*) is a very good second, and in common with the preceding has pale green leaves, but smaller in size, which turn golden in autumn. This tree requires a moist situation, where it will quickly attain a good height, but in dry soil its growth is slow, and the tree does not look happy and vigorous. The Himalayan Larch (*L. Griffithii*) bears the largest cones of the genus, and its habit is quite distinct from that of any other Larch. From the main branches hang long branchlets, somewhat after the style of *Larix europæa pendula*, but longer, straighter, and thicker, which sway at the slightest touch or puff of wind. Grown as an isolated specimen its dark brown autumn colour has not a deal to recommend it, but when associated with the foregoing it serves as a foil to their bright colours, and, as so often happens in flower-beds, the combination of brown and yellow increases the attractiveness of both. Most of the other Larches grown in this country have such narrow leaves that, except in very favourable seasons, they make but little colour display.

GINKGO BILOBA (the Maidenhair Tree) is always of interest. As the autumn sets in its leaves assume a soft golden colour, but, unfortunately, it is not of long duration; a sudden frost or rough winds soon strips the tree. Unlike most conifers this and the following make very fair town trees. It is generally supposed that the near proximity of water is essential for the well-being of the deciduous *Cypresses*, *Taxodium distichum*, but while it attains its largest size in a moist situation it also thrives in drier soil and makes a good lawn tree. Before falling the leaves take on a rich brown colour, and especially in the milder counties, hang on the trees long after most deciduous subjects have become bare. The variety *pendulum* is even more beautiful in the autumn than the type. This is a much neglected tree, and is eminently suitable for planting in moderate-sized gardens where larger trees would occupy too much room. *Taxodium distichum* var. *pendulum* is much smaller in all its parts, and also slower in growth than the type. Mature specimens, which rarely exceed 30 feet to 35 feet in height, form beautiful pyramidal trees of feathery appearance. The branchlets are usually pendulous, from which the tree derives its varietal name, and they fall off in the autumn. Like the species it is a water-loving tree in its native country Florida, and is amenable to drier culture in this country. A. C. BARTLETT.

Pencarrow Gardens, Bodmin.

GOLDEN-LEAVED EVERGREENS.

How very beautiful are many of our golden-leaved Evergreens, and how nicely they fit in among green-leaved sorts, the whole forming a lovely contrast! At this season of the year many of the golden forms are more beautiful than at any other time. Take, for example, the forms of *Arbor Vitæ*, *Retinispora plumosa aurea* and *R. pisifera aurea*, and the Douglas' golden Juniper. It is a revelation to many to look on them. The Peabody *Arbor Vitæ* is a golden form of the American, and it is a grand one. It needs planting where it will not be crowded; and it takes on the best colour when in the full sun. This, in fact, applies to all Evergreens of this class. The golden colour will not appear in its best form when the trees are shaded. Anyone may realise this by observing how much deeper the yellow colour is on the sunny side of these evergreens at this season of the year. On many a place where these evergreens are and have attained some height, they attract the attention of every lover of the beautiful. Of the two golden *Retinisporas*—*plumosa aurea* and *pisifera aurea*—though both are beautiful, the latter always pleases

me the more. It is of freer growth, not so compact as the other, and less artificial looking; and the golden colour is very bright. It is the more graceful of the two.

Rollinson's golden *Arbor Vitæ* never becomes as golden tinted as the kinds above-mentioned. It is somewhat golden tinted all the season. At this time of the year, when well exposed to the sun, it becomes of a bronze yellow, different from any other Evergreen I can think of. Douglas' golden Juniper is one of the spreading or concave growing sorts, just the thing where a low-growing, spreading sort of golden colour is wanted. Golden Yews always impress me as being more beautiful in early summer than at any other time, just as their new growth is forming. All the others are beautiful at the same time, but add to their golden colour in late autumn.

This is the time to be preparing for the propagating of these golden trees, and while doing it do not overlook *Retinispora pisifera aurea*, for it is a good thing, though not as common in cultivation as the other variety. Cuttings put in now, in boxes of sand, in the greenhouse, should be well rooted by early spring, when they may be potted off or transplanted into frames, to grow for another season. They are not strong enough to be set out in the open ground the first season.

J. MEEHAN in *Florists Exchange* (New York).

WHAT CAN BE DONE WITH A FRAME.

THE production of the best early spring-flowering plants ought to be considered not merely a pleasure, but a necessity, in every kitchen garden. Every garden, whether small or large, should possess several frames; and they are especially useful to those who wish to produce their own vegetables. Let us suppose, then, that the gardener has had a frame constructed. In February, in the warmest position at his disposal, he will dig a pit, 20 centimetres deep, and of the same length and width as the frame. The pit must be filled with two barrowloads of manure and the same of leaves, over this must be spread the soil excavated, then cover the whole with the frame, and around it pack leaves and manure. Eight days after seeds, as desired, may be sown—early and Roman Lettuce, Cabbage Milan, a few Leeks for use in May and June, and Cauliflowers for planting out in April. A little Radish seed may also be sown as a supplementary crop. As soon as the seedlings appear above the soil air must be admitted every day. In April the frame may be taken away and the seedlings exposed to the open air. The frame should then be placed over the spot in the garden prepared for the sowing of such annuals as *Petunias*, *Zinnias*, *Amaranthuses*, *Balsams*, *Ten-week Stocks*, &c., which need shelter for their development. In May the frame can again be taken away, and placed either over the first hot-bed or over a fresh one, where some Melon seed may be sown; two roots may remain in each frame, the others be planted on a slope or on the level. In July the Melons being uncovered the frame can be placed in the shade, where it will serve for striking cuttings from *Pinks*, &c., or for sowing *Pansies*, *Myosotis*, and other spring flowers. In September, if some of the Melons are backward, the frame can be replaced over them, and this will soon bring them to maturity.

In October, on the old hot-bed, some Lettuce may be planted, which will be fit for use in December, or the frames can be placed over early Carrots sown in August, and which will then be good for the whole winter. Radishes may also be sown in October, and if covered by a frame in November will be fit for use until January; or, again, there may be a small plot of Sorrel, which, if covered up in autumn, can be preserved throughout the winter. Endive and Chicory can also be kept under a frame until March. If Violets are planted under a frame in October they will blossom during part of the winter. If a frame is placed over a bed of Strawberries fruit may be gathered in the beginning of

May. If dwarf Peas are sown under a frame in January they will bear by the end of April. If Haricot Beans are sown under glass in the early days of April a gathering may be had at the end of May. Thus the frame is useful everywhere, and all the year round, and what has been said of one will apply to more. Our climate is subject to short spells of very cold weather, and in one night we may lose the work of several months, yet the protection of a sheet or frame will safeguard young plants, and advance growth by several weeks. It may be objected that the management of hot-beds demands a certain amount of knowledge and skill; but with a little practice and observation this will be easily acquired.—F. B., in *Bulletin d'Arboriculture*.

RIVIERA NOTES.

FROST ON THE RIVIERA.—The very severe frost that descended from the mountains and devastated the Riviera gardens was more sudden and unexpected than any visitation I can remember. January 1 dawned bright and pleasant, and the cool gave no

growth of *Veronica hulkeana* make it a most desirable shrub here.

PERSIAN CYCLAMENS must be much hardier than they are supposed to be, for everywhere in the shade of trees or shrubs they are quite uninjured, while *Primula obconica* looks very unhappy, though not killed. The most curious survival of this intense frost is the well-known Orchid,

CYMBIDIUM LOWIANUM, which, planted at the entrance to a natural grotto and somewhat sheltered, has not even lost its flower-spikes. Another month, when the full effect of the frost is revealed, the scarcity of flowers will be very great. Only those grown under glass with some artificial heat can have any flowers worth mention.

EUCALYPTUS TREES are whitened and withered in many places, but the Orange trees are not much the worse. I have seen them more injured by less frost, with snow in the air or on the leaves. Until the spring brings its

Roses, I doubt if any garden on this coast will be worth a visit, and it will take a very good season's growth to obliterate the disaster of January 1. Roses, Carnations, Anthe- mis,

usually produced in great profusion; they vary in colour from white to deep pink. The variety under observation is a very pleasing soft blush. Previous to my taking charge of the garden here these hedges had been subjected to a rather severe annual pruning, with all growths cropped into shape, the result being very few flowers the following season. The plan I have adopted is to cut out the old growths from the base after each season's flowering, and to leave the new growths or suckers quite entire, as the flower comes on the tips of these rather than the base, then to dig along each side of the hedge; this helps to remove all suckers, and to keep the hedge shapely. Here the Scotch Rose is planted in the kitchen garden with a bordering of *Saxifraga cæspitosa*; they make a very pretty combination, both flowering about the same period. It might be used in many other ways either as bushes in the flower garden, or informal groups on the edges of shrubberies and lawns, with very good effect.

Coatbridge, N.B.

P. S. FOLLWELL.

GOOD GROWTH OF ROSE REVE D'OR.

THIS Rose is one of the best for covering large spaces of wall or trellis quickly. I met with a fine specimen the other day that had been planted four years ago against a wall 6 feet 6 inches in height. Its main stem is now 9 inches in circumference at the ground level, and it has covered the wall to a length of 54 feet. *Rève d'Or* is a Rose that does best if unpruned, and, until the required space is completely filled, it is found better to lay in all the growths and to avoid the use of the knife entirely. This treatment has been followed with the example in question with the best results. Every November, early in the month, the long shoots that have shot up above the top of the wall are bent carefully down and secured in position with tarred string, thus the whole wall is veiled to the ground with foliage that in the summer is hidden beneath a wealth of blossoms that are indeed a "dream of gold."

S. W. F.



HEDGE OF SCOTCH ROSE WITH BORDER OF SAXIFRAGA CÆSPITOSA AND HEATH (ERICA VAGANS) IN A GARDEN IN SCOTLAND.

warning of anything unusual. At midday a bitterly cold wind set in, and, in spite of the bright sun, the temperature fell rapidly. At noon the thermometer stood at 46°, at 5 p.m. at 29°, and the next morning was as low as 20°. A most intense sun increased the mischief to the frozen plants, which the two following nights completed, and the wreck of flowers on this coast is deplorable everywhere.

BIGNONIA VENUSTA is the only flowering creeper that has stood the ordeal without material damage. The air was so dry, the flowers even did not suffer when close to the wall. In a wet season I have seen its buds frozen with only 2° of frost, but its foliage is wonderfully frost-proof.

PTERONIA INCANA, a charmingly fragrant-flowered little Cape shrub, has also survived unhurt, and *Diosmas* seem but little the worse, standing out green and fresh among the blackened *Salvias*, *Linums*, *Geraniums*, and bedding plants generally.

VERONICA HULKEANA is also perfectly uninjured, as are, of course, the hybrid shrubby *Veronicas*, but the neat foliage and compact

Geraniums, and *Salvias* are all flowerless or killed to the ground. *Mignonette* here and there has a fragrant head that has somehow escaped, and as the summer heat and drought killed many of the bulbs in the ground the outlook is not encouraging. We must be content with *Stocks*, *Iris stylosa*, a few *Anemones*, and *Narcissus* till the Almond blossom and *Acacia dealbata* herald the welcome spring.

Nice.

E. H. WOODALL.

THE ROSE GARDEN.

THE SCOTCH ROSE AS A HEDGE PLANT.

AS will be seen by the accompanying illustration, this Rose makes a very charming hedge, and is remarkable for its dwarfness. It is of very hardy habit, and will thrive in almost all soils and situations. Here the soil is cold and the atmosphere not very suitable for Rose-growing out of doors. The blooms are

THE FLOWER GARDEN.

THE SNOWDROPS.

(Continued from page 54.)

GALANTHUS CILICICUS is now a very common Snowdrop, quite distinct in its season of flowering, though closely resembling the common one in general appearance. Its leaves are 1 foot long, deeply grooved down the face, and the narrow-petalled flowers are of medium size, and appear somewhat irregularly, covering the early winter season. One may often gather them in November. It requires distinctly dry treatment, and a rocky slope is the best place for it. The stems are rather weak, and the green parts of the inflorescence are paler in colour than in other Snowdrops, so that the flower appears somewhat sickly, lacking the sharp contrast of emerald and white of *G. Elwesi*, and the spots on the inner segments are scanty and shaped like the letter V. There is considerable variation in this and other characters found in collected quantities, a feature more or less common in Snowdrops from countries eastward of the Italian Alps.

Elwes' Snowdrop (*G. Elwesi*).—This name is given to several forms of a very beautiful Snowdrop from Asia Minor, and collected bulbs give a greater number of forms in each succeeding year. The leaves are strap-shaped and slightly spatulate, 1 foot long. The flowers average 1 inch in length, and are borne on long stems. It is a splendid garden plant,

very hardy, but requiring lighter soils than most of the Snowdrops. Of the many forms that have been separated, the following appear, on examination, to possess some distinct feature as garden plants.

Var. Whittalli has globular flowers of larger size, round stems, and very broad leaves, one enclosing the other. A very vigorous plant.

Var. Cassaba has narrower leaves, long stems, and abnormally long pedicels. The flowers exceed 1 inch in length, and are "tear"-shaped, quite narrow next the ovary, but with a broad spreading limb. The lobes of the inner segments are dentate, and the two blotches of green often unite, or a thin tracing of white separates them.

Var. unguiculatus has a prolonged claw at the tip of each outer segment, and the spathe tips are equally prolonged. This feature is not so noticeable in the perfect flower as in the bud, and it is more remarkable in the spathe than in the flower itself. It agrees generally with *G. Elwesi*.

Var. ochrospeilus has pale yellow colouring on the inner segments instead of green. The flowers are distinct from those of *G. Elwesi* in their shorter length, circular petals, which are much inflated, and the inner segments are broader than they are long. This is a fine and distinct Snowdrop, and very vigorous.

Var. globosus does not differ in shape from *Whittalli*. It has the longest and more slender flowers, ochrospeilus the shortest and stoutest; *Whittalli* is the giant. All the varieties of *Elwes'* Snowdrop are natural variations; none of them have originated in gardens. Their flowering season extends from February to April.

G. Fosteri (Baker) is one of the newer Snowdrops of sturdy growth. The leaves are very broad and dark green, and the flowers, massive, are like an inflated cone in outline. The foliage as it emerges from the soil resembles that of the common Squill, and the flowers nestle among the leaves, rarely attaining the height of *G. Elwesi*. March.

G. græcus is a small-flowered Snowdrop but little grown, differing from the common Snowdrop in the tubular outline and greater length of the inner segments. March.

G. Ikarie.—A beautiful Snowdrop, very vigorous and free in flower. The leaves are arching, deep green, highly polished, and the flowers are very long and broad. Grown side by side with all the giant Snowdrops it proves the best of all and the largest. *Whittalli* often exceeds this plant in width of petal, but it has the pleasing grace of the Nikarian Snowdrop. The forms of *Elwes* surpass this for grass planting on account of their erect leafage, but *G. Ikarie* is the best Snowdrop for borders and cultivation in pans for the alpine house. It likes a good loam and a cool site.

G. latifolius (brown-leaved Snowdrop) is a familiar garden Snowdrop, following *G. nivalis* in close succession. The leaves are deep green, very strong, and 1 inch wide. The flowers are midway in size between those of *Elwes'* Snowdrop and the common Snowdrop, and they have a broad half-ring of green on both surfaces of the inner segments close to the white margins. March.

G. nivalis (the common Snowdrop) requires no description. It should be grown in grass, so that the stems lengthen out somewhat. Many of our English parks and woods have become famous for their acres of Snowdrops, and over the Border at Dunrobin Castle, Sutherlandshire, and in many Midlothian seats Snowdrops are seen in the happiest condition. Snowdrops appear to increase at their fastest rate in counties where the Oak thrives best, inasmuch that I instinctively look for good

examples of Oak wherever I see colonies of Snowdrops as Nature planted them. The forms of the common Snowdrop are legion, and each year adds to the number, so that it is now difficult to distinguish the microscopic differences that are supposed to separate the varieties.

GEO. B. MALLETT.

(To be continued.)

THE ALPINE HOUSE IN JANUARY.

SLOW progress has been made by many things during the last month, but notwithstanding the severe weather others keep on throwing up and expanding their flowers, and proving their value as winter-flowering plants for a cold unheated house. A great many others are rapidly pushing up their buds ready to open on the approach of genial weather. Some of the Colchicums, *C. libanoticum* and *C. Steveni*, which were in flower in the middle of December, with *Crocus hyemalis* var. *Foxii*, are still full of bloom, and may be said to be now at their best, one bulb of *C. libanoticum* carrying nine flowers. In addition to the Colchicums mentioned above, there are now in flower *C. hydrophilum* from Asia Minor, a pretty little species with dark rose-coloured flowers with paler tips; *C. montanum*, with globular pale lilac flowers; *C. Decaisnei* from Syria, with pale flesh-coloured flowers; and the interesting and pretty little *C. crociflorum* from Central Asia; its *Crocus*-like flowers are white, with purple lines of varying widths on the outside of the flower segments. A closely allied, charming little plant, *Merendera caucasica*, is also in full flower. This plant differs from the Colchicums in having the tube of the pinky mauve flowers split up into slender divisions right to the base. The Cyclamens are now beginning to make a bright display, and there are several pans of *C. ibericum* full of its dark rose-coloured flowers, set off by the silvery-zoned leaves. *C. Atkinsi*, a plant of garden origin, is also in flower. These vary in colour from nearly white to deep rose. Another plant which has received the name of *C. hyemale* has flowers and leaves closely resembling those of *C. ibericum*. These plants form one of the most valuable items for the alpine house at this time of year, owing to their hardiness and the ease with which they are grown, and four or five corms in a 7-inch pan will make a rich display of bloom. A valuable genus is that of the *Crocus*, of which, as well as the *C. hyemalis* before-mentioned, there are several kinds now in bloom. These include the pretty orange yellow flowered *C. ancyrensis* from Asia Minor, *C. chrysanthus* from the same country, with yellow flowers variously feathered on the outside; *C. Imperati*, with fawn and buff-coloured flowers; *C. biflorus*, with white flowers and lilac feathering, as well as the lovely *C. Sieberi* from Greece, with its bright purple flowers. Many other species are ready to burst into bloom, and there will be no lack of colour shortly.

Although it is not a showy plant, the Siberian *Corydalis Ledebouri* is worth growing on account of its earliness and distinctly interesting appearance. It has broad-lobed glaucous foliage, and naked stems about 3 inches long, bearing a dense head of chocolate-coloured flowers, each of which has a pale purple erect spur. The Caucasian *C. angustifolia* is also in bloom, with finely divided green foliage and white flowers. A useful plant is the early-flowering Grape Hyacinth, *Hyacinthus azureus* var. *præcox*. It is one of the many forms of this species, and is only about 3 inches high, with racemes of light blue flowers. It is sometimes called *Muscari præcox*, but strictly belongs to the genus *Hyacinthus*, as it possesses the characteristic open-mouthed corolla. It is the earliest form to flower, although the type and the var. *giganteus* are also showing their flower-spikes amongst the leaves. A curious plant is *Scoliopus Bigelovii*, a plant of the Lily family, from California. It has broad mottled leaves, and produces, about the middle of January, several brownish-striped flowers characterised by an anything but agreeable smell. Last, but not least, several of the bulbous Irises flower during the month, and include *I. Danfordiæ*,

I. histrioides, *I. stenophylla* (Heldreichii), and *I. Vartani*. *Adonis amurensis* is also opening its flowers both in the alpine house and in the open.

W. I.

THE FRUIT GARDEN.

NEW APPLES OF PROVED MERIT

ALLINGTON PIPPIN.—In many respects this is one of the best of recently introduced Apples. With most novelties when first submitted to public favour there is a certain exaggeration as regards their merits by their raisers and admirers. It was no doubt so in this case, especially when it was represented as being equal to Cox's Orange Pippin in flavour. Time has proved this estimate to have been overdrawn. At the same time, the Apple has a distinct flavour that commends it to many. It partakes of the richness and aroma of the old Golden Reinette. But the strong points in favour of this Apple are undoubtedly its heavy and sure cropping and its free bearing while the trees are still young. The fruit is handsome, of medium size, rather conical in form, the ground colour of the skin being a creamy yellow, with bright streaks of red on the sunny side. This Apple is now planted extensively for market purposes, its attractive appearance and heavy cropping making it a favourite sort in this respect. It is in season from October to the end of January. It has had a first-class certificate from the Royal Horticultural Society.

CHRISTMAS PEARMAN.—This variety deserves to be better known. It has a robust constitution and is immune from canker. My experience of it proves it to be one of the heaviest cropping dessert Apples we have. In form it is not unlike Allington Pippin, being of a conical and true Pearmain shape, but the colour is much deeper. The ground colour of the skin is covered with russet spots, and the sunny side is bright scarlet. As its name indicates, it is in season at Christmas, and for some time before and after. The flavour is good. The tree will succeed either as a standard in the orchard or as a bush in the garden. It will prove an excellent sort to grow for market.

JAMES GRIEVE.—This is an early Apple introduced from Scotland a few years ago. It is in season from September to November, and is a variety that has made great headway in public favour; no garden should be without a bush or two of it. The tree is a moderate grower, and is better adapted for growth as a bush than as a standard. This is the only variety so far that can, in the opinion of many, claim to be almost equal in point of flavour to Cox's Orange Pippin. For this reason it is now often called early Cox's, being ripe a month before that variety. The fruit is of medium size, having a pale yellow skin with a faint flush of red on the sunny side. It is an abundant bearer, and succeeds well as an espalier cordon. It received the award of merit from the Royal Horticultural Society in 1897.

LANGLEY PIPPIN.—This was raised at the Langley Nurseries of Messrs. J. Veitch and Sons, Limited, and is a cross between Cox's Orange Pippin and Mr. Gladstone, two excellent varieties, the latter being one of the best early Apples. Langley Pippin has, I think, shown more of the Gladstone influence than of Cox's Orange Pippin both in appearance and in earliness of ripening. It is in season during August and September. The flesh is white, sweet, and tender, with the juiciness and crispness of Cox's Orange Pippin. It is of medium size, and pale yellow colour, with a rosy cheek next the sun. The tree is a moderately strong grower, and succeeds as a bush, cordon, or standard, is a good bearer, and a welcome addition to our early Apples. Award of merit Royal Horticultural Society.

OWEN THOMAS.

APPLE BISMARCK.

INTENDING planters might do worse than pay attention to this excellent cooking variety. Of



HABERLEA RHODOPENSIS IN ROCK GARDEN.

high colour and goodly proportions, there is little difficulty in disposing of graded fruits in the market. We had no trouble in selling best samples during the worst of the slump. Grown as open bushes on the Paradise, our trees have borne, if anything, rather too heavily, and thinning has been necessary. We have also had very finely coloured fruits from espaliers in one of the coldest districts of the Midlands. That the variety possesses other attributes than colour and size is proved by the fact that, of a number of cooking sorts tested since September, it has so far proved the best in flavour when cooked. Its season is usually noted as November, but we have had the variety in sound condition months after that date.

Gloucester.

J. WRIGHT.

THE CALVILLE APPLES AND THEIR VALUE.

Of late years we have found the Calvilles of great value, for the reason that they have cropped when others failed, and, in addition, their good keeping qualities render them most serviceable. They comprise over a dozen varieties, some of which I will describe. As the name denotes, they are of Continental origin, and in France the Calvilles in variety are much liked, some being preferred to all others.

CALVILLE BLANC, or White Summer Calville.—A medium-sized fruit for dessert or kitchen. When cooked it is very good, and, though it requires a warm situation and should only be grown under the most favourable conditions, it is worth extended culture. Mr. Bunyard describes this Calville as a delicious fruit, soft, and a valuable tree for walls or pot culture. It must not be grown in heavy clay soils. On our light ground it fruits less freely than Boisbunel, but is more delicate in flavour. Some consider Blanc and Blanc d'Hiver the same; but this cannot be, for the last-named is not ripe till December, and keeps good until April. I have often seen Blanc d'Hiver staged as Blanc or Blanche, and *vice versa*. Both have large leaves, but the last is a longer fruit and a most valuable winter Apple; it is good on the Paradise stock as a bush, and an excellent dessert fruit at the season named.

CALVILLE ROUGE PRECOCE.—A very handsome Apple, and better known in this country than any, owing to its splendid colour. Years ago this was a beautiful fruit in the old Chiswick Gardens. It was always noticeable for its handsome shape and

deep crimson colour with distinct white spots. Even for its appearance it is worth growing; the flesh is very sweet, and it is an early Apple, in season from October to December. A great bearer, and much hardier than some of the Calvilles. It is just the size for dessert, and a good market fruit.

CALVILLE ROUGE D'HIVER.—This is quite distinct, and with names so closely resembling each other it is an easy matter to confuse one with the other. This is a cooking fruit, though when kept well into winter it is by no means bad for dessert; a large oblong fruit, rich red like Précoce, but the colour goes deep into the flesh, and it is a very free bearer. I saw this variety bearing a fine crop on a west wall in Scotland, and the fruits keep well into the spring. It will be seen that on this account it is more valuable. By many it is called the Winter Rouge, and is well worth a place in all collections. There are other Rouges; one is called Rouge d'Automne, but this is useless for the garden, though handsome. In France it is a favourite for its juice.

CALVILLE BOISEBUNEL.—This is one of our most reliable fruits. Like several of the Calvilles, it may be classed as either a kitchen or dessert sort. It is a large fruit; indeed, when well grown it is often staged as an exhibition variety, and it makes a good growth in most places, the tree being hardier than some of the type. The fruits are bronzy green, round, and sweet, and in perfection at mid-season. It is at its best from October to January, though I have kept it longer, and the quality is first-rate. Our best fruits are grown on bush trees, and these crop when others fail.

CALVILLE MALINGRE.—The French class this as a valuable invalid's Apple. This, like the last-named, is one of the best of the Calvilles, a free, compact grower, doing well in most places. A cooking Apple of great excellence, and in season from Christmas to May. The fruit is of medium size, dull red, with a little yellow on the shaded side and strewn over with minute spots; flesh white, delicate, and juicy, but agreeably acid.

CALVILLE DES FEMMES.—This is less known than others, and I note it for its late keeping, its free bearing, and good cropping. A large fruit, and a distinct cooking variety, doing well as a bush, though I have only grown it as a cordon. I have seen good fruiting trees as bushes on the Paradise stock. Grown thus it crops freely.

CALVILLE ST. SAUVEUR.—This, like the last, I have only grown as a cordon, but it fruited very freely, and the quality was first-rate. It is a large, conical fruit, pale green in colour, flushed with crimson. A splendid cooker, and a mid-season variety. Like the last-named, it is not much grown in this country.

G. WYTHES.

NOTES ON HARDY PLANTS.

THE ROSETTE MULLEIN.

RAMONDIA PYRENAICA is an easily grown hardy perennial rock plant. It thrives here in a sheltered position facing north, planted in a chink in the face of steep rock-work. The soil, which is therefore well drained, is peaty. It should be planted on its side, so as to prevent water resting in the rosettes and rotting them. The flowers are a very delicate purple, almost white, with bright orange centres, and the rosette of this particular plant, which has been growing here for three years, is 10 inches across. It is one of the most beautiful of all rock plants.

HABERLEA RHODOPENSIS.

Haberlea rhodopensis is a native of the Balkan mountains. It is, perhaps, not quite so attractive as *Ramondia pyrenaica*, which it resembles both in foliage and the colour of its flowers, and in that it flourishes under similar treatment. But it is more easily grown than the latter, has a longer flowering season,

and is easily propagated by division in the autumn. They both flower in late spring, the *Haberlea* coming first into bloom.

Woodside, Howth.

T. B. HART.

DOUBLE DAISIES FROM SEED.

THAT we should be able to obtain excellent double-flowered Daisies from seed renders the raising of these plants comparatively easy. Where stocks of the old double white, crimson, pink, and others have to be kept through the summer in hot inland districts it is often a difficult matter to preserve the plants, especially if they have been lifted from flower-beds in May and have had to be planted thickly on a shaded border. We can get from seed now several colours in good double flowers, the pure white variety being exceptionally good. Seed should be sown in shallow pans or boxes in April. It is well to lift the seedlings when strong enough to handle and dibble them out more thinly into other boxes or under hand-lights in a shady place, and when still stronger to plant them up 6 inches apart till October. When they have become quite large plants, they can be put out where they are to flower. I have seen such plants flowering freely all through mild winters. That is not a feature of named and divided plants, as these too often bloom rather late in the spring than early. Some twenty to twenty-five years ago we had quite a considerable variety of double Daisies, but many of them seem to have disappeared. Not only were there giant and ordinary forms, but also flat-petalled and quilled, and several variations in colour. The large or crown-flowered red is still sometimes seen, but the chief ones are the flat-petalled white and the quilled crimson, also known under the name of Rob Roy. That is a rich colour such as seedlings do not yet give, but very likely will in good time. The pretty golden blotched or variegated *aucubæfolia* was once largely grown, but has almost disappeared. It was not easy to keep growing through hot, dry summers. There was a white-flowered form at one time in existence, but it was weaker in constitution than the red-flowered variety. The old Hen and Chickens variety is not adapted for bedding.

A. D.

CYCLAMEN HYEMALE.

CORMS of a *Cyclamen* under the above name were received from Mr. W. Siehe of Mersina last April, with the information that he had found it in Asia Minor during the previous winter, and that it had been identified and described as a new species by Professor Hildebrandt of Freiburg, who has made



THE ROSETTE MULLEIN (RAMONDIA PYRENAICA) IN ROCK GARDEN.

a special study of the genus. It belongs to the *Coum* section of the genus, and is closely allied to the Caucasian *C. ibericum*, even if it is not only a form of that species. The author lays great stress on the time of flowering of the new species, saying that it differs from all others in this respect in flowering in midwinter. It is now in flower in the Alpine house at Kew, as also is *C. ibericum*

under the same conditions, so that the above character does not stand for much. Compared with *C. ibericum*, the new species has more rounded leaves, somewhat like those of *C. Coum* in shape, but with a faint silvery zone. The flowers are rather smaller and a bit lighter in colour, while the concave blotch at the base of the petals is not so large as in *C. ibericum*. Other slight differences may exist in the size and length of the tube, or in the shape of the corm, but *C. ibericum* itself is variable, and judging from the present condition of the two, I am of the opinion that one is but a geographical form of the other, with differences so small that it seems hardly worth while to give it specific rank. As *C. ibericum* is found in Northern Persia as well as in the Caucasus, it may well extend into parts of Asia Minor, and thus *C. hyemale* may be said to be the connecting link between it and the closely allied but rather more Western *C. Coum*, which is found in Greece and Asia Minor. It is evidently intermediate in character, with an affinity for *C. ibericum*.

W. IRVING.

THE EFFECT OF FOG NEAR LONDON.

HORTICULTURISTS in and around London have cause to remember the disastrous results to their plants of the fog experienced during the closing month of the year 1904. Plant houses usually gay at Christmas presented a sorry sight. No injury results from the mist; the mischief is chiefly due to smoke from large factories. This is why the damage is generally restricted to the neighbourhood of London and other large towns. How could the gardener, resident in the vicinity of London, who saw the beautiful plants of *Moschosma riparium* from Swanley at the Royal Horticultural Society's show on January 3, help envying the gardener in the country, knowing that at home his plants were little more than bare stems? At present there seems to be no practical way of counteracting it.

Closing of all ventilators will not keep it out of the houses. Experience leads one to the conclusion that if it is possible to mitigate the ill effects at all, it is by keeping the temperature of the houses low and moderately dry. It is fourteen or fifteen years since so much damage was done at Kew. The outside appearance of the houses reminded one more of slate roofs than glass. This is well seen in the illustration of the roof of the Temperate house. The central or highest part had been washed previous to the taking of the photograph. The greasy deposit is by no means easy to remove, as ordinary rain has no effect on it. The cost of removing it from the Palm house alone was about £20. Inside the houses for some time after fallen flowers, but more especially leaves, could be seen in all directions, despite a daily clean up. Some plants were affected more quickly than others. In places it reminded one of over-fumigation with tobacco. Almost all the buds and flowers on Orchids were destroyed. Ferns appear little if any the worse. Many climbers, especially in the Palm house, were entirely denuded of leaves. The following are a few of the plants stripped of flowers, buds, and many leaves: *Eupatoriums*,

Salvias, *Jacobinias*, *Reinwardtias*, *Poinsettias*, *Coleuses*, *Moschosmas*, *Solanums*, and *Cestrum*s. Many of the *Acacias* lost a quantity of leaves. *Begonias* lost both flowers and leaves. After such visitations as this one need not wonder why nursery businesses are being transferred from the London districts to the country. Those in the country should remember the conditions under which plants are grown in London.

A. O.

COLOURED PLATE.

PLATE 1267.

THE MIXED BORDER IN ENGLISH GARDENS.

(WITH A COLOURED PLATE OF THE BORDER IN SUMMER-TIME AT HAMPTON COURT.)

AS this is a subject of much interest we think a few general remarks will be helpful to our readers.

Some kind of border where there is a mixture of hardy flowers is to be found in every garden, such as that shown in the coloured illustration. Sometimes it is merely a place where all sorts of

persistent, in which case this is so valuable a quality that it may redeem the plant.

The choice of kinds being decided on, the way in which they are arranged then becomes the matter of chief importance. It seems a natural arrangement to use the creeping and short-growing plants in front and the next in stature behind them, and the tall ones at the back. This is obviously a good general rule, but if not varied with judicious exceptions the result will be very monotonous. Now and then some of the tall backward groups should break forward. Think of the way in which the lateral spurs of a mountain chain descend into the valley or plain. They all do come down to the level, but in how varied and beautiful a way! Think of this and then think of the dull and ugly slope of a slate roof, and then think of your border and apply the lesson.

Then try and get hold of some definite scheme of colouring, in order to get richness and brilliancy with dignity. It saves much trouble and puzzling at planting time to have a regular scheme of simple progression of colour from end to end, so that if you have a yellow-flowered thing to plant you put it in the yellow place and so on. In no way can you get so much real power of colour, by which is meant strength, richness, and brilliancy, as by beginning very quietly at the ends of the border with cool-coloured bluish foliage and flowers of tender colouring, white, pale blue, and palest sulphur-yellow, and even with these palest pink; beginning quite *piano*, then feeling the way to full, and from that to strong yellows; then by a gradual *crescendo* to rich orange, and from that to the *forte* and *fortissimo* of scarlets and strong blood-crimsons, and then again descending in the scale of strength to the tender colouring.

In other parts of the

garden you may have incidents of brilliant contrast, which are especially desirable in the case of strong blue flowers; but in the mixed border the way of having the rich and brilliant harmony approached by more delicate colouring can scarcely be improved upon, and so only can the vice of garish vulgarity be avoided.

Plants of the same colouring are intergrouped, so that the red group, whether early or late, is always a red group, and so on throughout. There are ways of filling gaps by training plants down to fill the spaces. For this use, Everlasting Peas, tall perennial Sun-flowers, and Rudbeckias and Dahlias are especially accommodating.

Nothing is so destructive of good effect in the mixed border as the old unthinking mixed up way. Plants of the same kind, instead of being dotted at equal intervals, should be grouped together, each group dying away into the neighbouring group, or if there is only one plant of a kind there is no harm in its being one alone if only it is in its right place.



THE TEMPERATE HOUSE AT KEW.

(This illustration shows the effect of the recent fogs on the glass. Note the difference between the two washed panes and the remainder of the glass.)

plants find a home without regard to effect or any intentional arrangement, but more often, and especially when it is in the more ornamental part of the garden, a good effect is desired, and some advice about its arrangement may be of use.

It is not altogether an easy matter to keep a mixed border well furnished throughout the flowery months of the year, and to avoid unsightly gaps, but there are ways of doing it, and even beginners should not be afraid of facing this fact, and of thinking out ways and contriving methods so as to have as few empty places as may be. There are some common-sense considerations that will be a guide to the choice of plants to use. The first and most obvious is that the plant must be in itself handsome and somewhat showy. The next, and one of the most important, is that it should remain a good while in flower. Plants that are in flower a few days only and then are done are of little use in the mixed border, unless their foliage is unusually handsome and



THE MIXED BORDER AT HAMPTON COURT

Painted by Mrs. J. H. H. H. H.

STOVE AND GREENHOUSE.

SOME VALUABLE WINTER FLOWERS.

WHEN the outdoor garden shows few or no signs of life, and Snowdrops and Aconites are not yet through its frost-clasped surface, one's thoughts turn naturally to flowers under glass.

During the winter months many delightful displays of exotic plants in flower have been made at the meetings of the Royal Horticultural Society, and visitors to the hall in Westminster have had opportunities of taking note of them. It may not be out of place, however, to draw attention to some of the most noteworthy.

I have rarely seen anything more beautiful than the group of plants of *Euphorbia jacquiniæflora*, the beautiful Spurge, with rich orange red bracts, a shoot of which is shown in the accompanying illustration. The plants were exhibited by Mr. Beckett, gardener to Lord Aldenham, Elstree, Herts. Mr. Beckett wrote an article about this plant in *THE GARDEN* of the 7th ult., so any one wishing to know how to grow it will find full particulars there. No plant will prove more worthy of care. The slender shoots, a mass of orange red bracts, surrounded on each side by rich green leaves, made a charming display.

Another valuable winter-flowering plant for culture under glass is *Coleus thyrsoideus*, which produces large spikes of rich blue flowers.

blossoms, makes an admirable companion to the blue-flowered *Coleus* just mentioned. Groups of the two together make a very bright display either in the glass house or the home.

The old *Jacobinia coccinea*, with rich pink blooms, and *J. chrysostephana*, orange yellow, are both valuable for their bright winter flowers. Then there is *Reinwardtia tetragyna*, which bears rich yellow flowers, something like a very large winter Jasmine. Of course, the *Begonias* are a host in themselves, such as *Begonia Gloire de Lorraine*, and its white variety, *Turnford Hall*, *Winter Cheer*, *Winter Perfection*, *John Heal*, and others providing brightness and beauty for the most fastidious. There are

greenhouse is apt to be not on view at this season. Many of the plants in it are pretty sure to be in somewhat sorry plight. Some may show signs of damping off, others have unaccountably dropped a goodly number of their leaves. The best specimens of *Cineraria*, from which perhaps much was expected, have had their leaves riddled through and through by tiresome green caterpillars, which hid so cleverly that it was hard to find them before irreparable mischief had been done.

Trained gardeners seem to be exempt from such mishaps, but then gardeners are not much troubled by sentiment, and an offending plant—of which there are sure to be duplicates in better condition—is promptly thrown out upon the rubbish heap. It would be well if sometimes we could persuade ourselves to do the same, but we are much more likely



A SPRAY OF THE SCARLET SPURGE

(EUPHORBIA JACQUINIÆFLORA).

REDUCED.

It is undoubtedly the best blue-flowered plant we have at this season of the year. I need not give cultural details here, as Mr. Mayne did so on page 34 of *THE GARDEN* for the 21st ult. Another warm house winter-flowering plant with deep blue flowers is *Eranthemum pulchellum*. The individual blossoms do not last very long, but they are produced over a considerable period, and thus make up collectively what they lack singly. If the old plants are cut down after the flowers are over the growths that are produced will, if taken off and placed in pots in sandy soil, root quickly and grow into good plants to flower the winter following.

Moschosma riparium, a plant from South Africa of comparatively recent introduction, that bears a profusion of pink-white

others of merit that are more or less neglected; but even if only those mentioned were grown the warm house in winter would be anything but cheerless. Y. Z.

WORK IN AN AMATEUR'S GREENHOUSE.

By an amateur's greenhouse it is intended to denote such an one as is in the entire charge, or at least superintendence, of its owner. That owner may or may not be proficient in the art of growing plants, nor does it follow that he has no gardener; but at any rate he is likely to be an enthusiast and eager to welcome the hints which may come to him through the experience of another.

January is a trying month, especially to a novice. There is probably nothing much in flower, for the

to try one dodge after another to restore an old favourite, until in sheer desperation it departs of its own accord. Never mind, let us take heart. If we have yet to win our spurs, we must profit by the experiences, painful as well as pleasant, of every season as it passes. Even old gardeners, especially on moving into new quarters under fresh conditions of climate and soil, find that they have to readjust both theory and practice, and, in a measure, to begin over again. The shortest day has now been left behind, and greenhouse operations must soon begin in good earnest. An old gardener used to curb my impatience by saying "Nothing much can be done but just keep things going until after the turn of the days." And it is true. Until then active work, such as seed sowing, repotting, and so on, had better be left alone. K. L. D.

(To be continued.)

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

EVILS OF DEEP PLANTING.—There is no rule without an exception, and the exception in this case are Roses budded or grafted on the Manetti, which are usually planted deep enough to cover the union and induce roots to form on the base of the Rose. The bad effect of burying the collar of a tree or plant is more speedily seen where the soil is wet and heavy than where the drainage is better and the soil lighter.

Fruit Trees too Deeply Planted.—The earth has a natural tendency to rise—the worms are accountable for some rise in the surface—and continual manuring and spade work has a more potent influence in lifting up the surface. In planting fruit trees that will probably occupy the site some time keep the roots well up. Many good gardeners make a rule to lift all fruit trees when they have been planted four years and bring the roots nearer the surface.

Canker in Fruit Trees.—Some trees are predisposed to canker, and this tendency to canker is very common when the roots are too deep in the soil, especially if the drainage is not perfect. Because fungus is present in the wounds of cankered trees many people look upon it as the direct cause; but from what I have seen I should regard it as an effect of a primary cause, which has had its origin in deep rooting unripe wood, and ruptured sap vessels caused by frost.

Canker in the Maréchal Niel Rose.—Occasionally this beautiful Rose may have a healthy old age, but not often. Usually it falls a prey to canker early in life, and then, in spite of all one can do, it dwindles and dies. Those who grow Maréchal Niel cannot be too careful about the health of the stock. A healthy Briar stock is best, the site should be well drained, and only a moderate quantity of farmyard manure used; but bone-meal, wood ashes, and a sprinkling of lime and soot will be beneficial.

Moss and Lichen on Fruit Trees.—There are two causes for this. The chief cause is bad drainage, and the second is poorness of the soil, and both operate in a similar way in starving and impoverishing the tree. Good fruit cannot be grown by a starveling system of culture. The tree must have proper nourishment, or the blossoms will be imperfect and fail to set, or the fruit will fall when the first difficulty comes.

Depth of Covering for Peas.—We usually cover early Peas at this season in the warm border 2 inches deep, and increase the depth of covering slightly as the season advances. In May Marrow Peas in well-worked soil may have a covering of 4 inches. Drought is the difficulty to guard against with late Peas in August, and, if only thinly covered, the roots do not get so good a grasp of the soil, and thrips or mildew, or both, soon ruin them.

Propagating Roses in Spring from Cuttings.—Most people who have the means force a few Roses, chiefly Teas, and when the first flush of bloom is over there are plenty of young shoots getting a little bit firm at the base, which make the best possible cuttings, and may be taken off with or without a heel of old wood. I prefer a bit of old wood, but every bit will grow under suitable conditions. The cuttings may be laid in moist Cocoanut fibre without pots or soil, simply laid in the damp fibre, and where there is a brisk bottom-heat.

Own-rooted Roses.—It is not every Rose that is a success on its own roots, but there are so many vigorous varieties to choose from that those who

want to fill their garden with plants that will not die will have no difficulty in making a selection. Unless one has the command of heat, and Roses now coming on under glass from which cuttings can be taken, it will be better to put in the cuttings towards the end of the summer, or, say, in September, when the wood is getting ripe, as then they will strike in the open air.

Vines from Eyes.—The eyes should be taken from well-ripened wood, and be about 1 inch long, with the bud or eye in the centre, the wood at the back of the bud to be cut away a little in a slanting direction. There is no better way of treating the eyes than thrusting them into square sods of turf about 4 inches in diameter, and packing them close together in boxes over the hot-water pipes with squares of glass over them, these being placed in a house where the Vines are just started to come on quickly. If placed at once in strong bottom-heat the eyes start before the wounds are callused, and die for want of support.

Evils of Bad Drainage are twofold, as wet land is always cold and the growth does not ripen. And the benefits of drainage are twofold also, as the drains which carry out the water will bring back air, and aeration means warmth and increased root formation. But deep rooting, even in fairly good land, is hurtful, as the roots lose the benefit of the solar warmth. What we want is more roots near the surface, and this condition of things can only be brought about by the frequent application of rich top-dressing.

Pruning Gooseberries.—If heavy crops are wanted leave in plenty of young wood nearly full length, but do not overcrowd, as flavour demands a free circulation of air. Neither can the fruit be easily gathered when hidden in a thicket of branches. Begin with the bottom of the bush and remove the branches near the ground, as no one cares for dirty fruit; then open out the centre and go regularly over the bush to thin out weakly and badly-placed shoots, leaving a young shoot wherever there is room, and in shortening only remove unripe ends.

Lavender and Rosemary.—There is a growing demand for these old-fashioned plants for grouping and to form edgings in what may be termed the revived taste for the old English gardens. Small plants of Lavender make beautiful hedges; but the plants must be kept low by pruning, and the soil should not be rich. Lime siftings, or old plaster, or chalk mixed with the soil will harden the growth, and lengthen out the lives of the plants; but one of the most effective ways of using Lavender and Rosemary is to group the plants on the banks along the margin of the shrubbery. Plants may be obtained from sowing seeds now, or cuttings may be planted under glass in sandy soil.

Do not Buy Cheap Seeds.—Breed always tells both in plants and animals, and when supplied with the best obtainable do not waste them by thick sowing. Much money is wasted by sowing carelessly in this way. It is well to have some power of selection, for no matter how good the growing power of the seeds may be there will be weaklings among them. And we should have plants enough on the ground after discarding these.

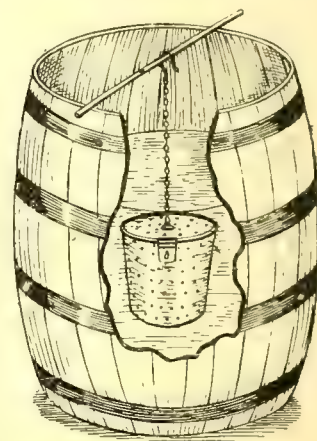
Vegetables to be Sown now under Glass.—The successful exhibitor at the local show sows his Onions in his little greenhouse or warm frame in February. A variety of the White Spanish named Ailsa Craig is very often selected, and Magnum Bonum and other well-selected stocks may be treated in the same way. The young plants will be hardened off and planted out in April in deeply-worked land. Brussels Sprouts, Cauliflowers, Leeks, Lettuces, and Celery may be sown now in

small quantities for an early start, the plants to be pricked out when large enough.

"LEVIATHAN" MANURE INFUSER.

THE use of liquid manure is not the most pleasant, though it is an essential, item in all gardens.

The old system of placing the manure in bags previous to immersing it in the tub or tank has one drawback—the bags soon rot and the manure falls out. The invention shown in the illustration is made of stout galvanised iron, somewhat in the shape of a pail, having a lid with a strong hinge. A chain is attached to the centre, and this, fixed to the side of the tank or tub, enables it to be pulled up and down so that the water percolates through, thus becoming of manurial value and still remaining clear. It may be used in an ordinary water-barrow, and is easily removed. It is the invention of an enthusiastic amateur, Mr. S. H. Levi of Weybridge, who makes practical demonstrations in his own garden, and is glad to prove its value to anyone who may happen to call on him.



WATERING PLANTS IN WINTER.

MUCH injury is sometimes done to delicate plants through their being watered with cold water during the winter. It may be laid down as a safe principle that when water is given to plants it should always be of the same temperature as that of the house in which the plants are growing. At this season of the year, when cold winds and frost prevail, cold water should never be used in a warm greenhouse; it is always best for the water to be warmed 3° or 4° above the temperature of the house. The application of water is a matter of some moment; the soil in the pots should be kept as nearly as possible at a uniform degree of moisture, that degree being a medium between wetness and drought. To secure this it is proper to examine the plants daily. Bad drainage results in injury to plants when they are overwatered. If the soil be porous and the drainage good, water passes through the pot quickly and no harm is done; but a soddened soil should always be avoided. There should be no extremes of wetness and dryness, but it is probable more plants fail from the first cause than from the last. A careful gardener waters in the morning, so that if there be any spilling on the flags this may dry before night. It is an axiom in plant culture that plants which are in flower require more water than those which are not, but it would not be difficult to find exceptions to this rule. Hardy plants in cold houses need to be watered with discrimination during frosty weather. If frozen they should be left until a thaw comes. Plants which are dry at the roots withstand frost better than those which are in a moist soil, and, as at this season of the year they are in a stage of inactivity, they do not suffer to any extent from being dry. But as soon as a thaw is followed by mild weather, then such as need water should have it freely, supplying it as early in the day as possible, so that shelves and floor may become dry before nightfall. R. D.

MELONS AND HOW TO GROW THEM.

ALTHOUGH we are still in the depths of winter it is necessary to look forward and prepare for summer. The gardener's work must be carried on largely independent of the seasons; thus, although the Melon is a summer fruit, reminiscent of sunny days, steps must be taken soon to ensure a crop at the time it is most appreciated. Melons out of season lose half their value, yet what can be more refreshing, if partaken of at the proper time, than a luscious Melon?

Why is it that so many amateurs never attempt Melon culture? It is, I think, because they think it is difficult and very expensive. A little experience would soon disprove these fallacies. Of course, there is considerable expense attached to the culture of forced Melons, but later ones can be grown at little expense.

There are several points of importance that deserve prominence, for to their neglect the failure of a house or pit of Melons can often be traced. They require bottom-heat, which is conveniently obtained by making up a hot-bed of manure; a shallow firm bed of soil in which to root, plenty of air whenever the outside conditions admit of its being given, so as to ensure hard growths and healthy plants; an abundance of water when the border is full of roots, and careful watering near the plants so that the stems are kept dry. Canker, a disease that attacks the stem at the ground level, is the Melon grower's greatest enemy, and this is especially liable to occur if the stems are kept damp. If you go through Melon houses under the charge of an experienced grower you can hardly fail to notice that the soil for a distance of 2 inches or so around the plant stems is kept dry, simply as a safeguard against canker. I have found nothing better than a bed of soil of whole turves. Upon the manure a layer of turves, grass side downwards, is placed; a width of three turves is sufficient. Upon the first layer we place another layer consisting of the outside rows of turves only; the centre thus left vacant is filled with soil in which to put the seedling plants. Their fine rootlets make quicker progress in the loose soil than in the turves. The seeds may either be sown in small pots, planting out the seedlings when they are a few inches high, or the seeds may be sown directly in the bed. I think the former method is preferable, for then the hot-bed need not be made up so early, and consequently will not lose its heat so soon. If the house is kept warm and moist the tiny plants will progress rapidly and will quickly reach the trellis. The Melon is a rapid grower, and lateral shoots will soon form, bearing flowers. Four fruits should be secured from each plant, so an endeavour must be made to pollinate four or five flowers at the same or nearly the same time. If one or two are fertilised before the others the embryo fruits quickly develop, and the later ones are invariably left behind and rarely make good fruits. It is important to have the trellis covered with large, healthy leaves; therefore a vigorous growth is essential. Careful ventilation and watering help

toward this end. After sufficient fruits are set the laterals must be stopped so as not to make a thicket of growth. If the leaves are too numerous they retain moisture, which, falling on the fruits, is apt to cause them to decay or on the stems to make them liable to canker, besides light cannot penetrate properly. The minimum temperature of the Melon house should be 60° Fahr., rising to 85° or 90° with sun-heat. When the fruits have fully developed and are commencing to ripen a drier atmosphere and rather more air are necessary to bring out the flavour.

Just a few words about frame culture, which is not practised nearly so much as it might be. Supposing you have only a one-light frame, a hot-bed should be made up that will extend about 2 feet on each side the frame when this is placed upon it. When the bed is finished, make up a bed of soil upon it as detailed already. Supposing the seedlings to have been raised in small pots, plant them out in the soil, making the latter firm about them. It is not safe to commence Melon culture in frames before the end of March, so this must be borne in mind when reading the directions given for their culture. When the young plants are about 6 inches high they must be stopped, so that each plant will have two stems instead of one. There is room for two plants—that is, four stems—under each light; they should be disposed something in the way of a cross. When the growths are about 2 feet long or rather more they must be stopped again; laterals will then develop, and the flowers will be produced upon them. An endeavour should be made to secure four fruits on each plant, two on each stem. The directions already given as to stopping the laterals to prevent overcrowding must be followed. Before the fruits are very large it is a good plan to top-dress with some good soil, taking care to make it firm. As the fruits develop they must be raised from the border and placed upon inverted flower-pots, so as to

expose them to the light. It is most important to close the frame early in the afternoon, so that it may be kept warm throughout the night. Give water carefully, so that it does not come in contact with the plant stems.

A. H. P.

GARDENING OF THE WEEK.

FLOWER GARDEN.

THE occurrence of wintry weather has again put a stop to planting—at least, it has done so here—so that renewed efforts must be made to press forward this work on every favourable opportunity, for deciduous trees and shrubs, especially early flowering ones, will soon be on the move. Late planting, however carefully done, checks many trees, besides entailing considerable more labour in the way of watering and mulching, for these details must be carried out thoroughly at this season if success is to be attained. The present is a favourable time to put

THE WILD GARDEN in order, for probably rank grasses and weeds have grown, and partly smothered some herbaceous clumps or conspicuous specimens. Carefully fork out all weeds, giving the plants a liberal dressing of some approved fertiliser or farmyard manure, afterwards strewing rough grass over the dug soil, as bare brown rings are very objectionable on a green sward. Grub out Docks, Nettles, and all coarse weeds at once, for if left until later, and there are bulbs in the ground, these will be considerably damaged. Endeavour to keep the wild garden clean and natural, and the plants in luxuriant growth, but avoid stiffness and artificiality. Plant out

LILIES that were wintered in pots. These are ideal plants for putting in among American shrubs, particularly Azaleas. The shade is beneficial to the young growths of the Lilies, and there is no fear of the latter being quickly overgrown by them. Lilies fill up the dull blank between the blooming and the autumnal leaf tints of the Azaleas as well, if not better, than any class of hardy plant I know; they are noble in appearance and delightfully



A HOUSE OF MELONS IN MR. MORTIMER'S NURSERY AT FARNHAM, SURREY.

fragrant. With a little care *L. longiflorum* bulbs are easily retarded, and planted out now will result in a later blooming season—quite late summer. Plant liberally in irregular clumps of hundreds, if means and space permit, but sufficiently thin to admit of planting among them late flowering plants, such as early *Chrysanthemums*, *Dahlias*, *Salvias*, &c., to prolong the display until destroyed by frost.

GALTONIA CANDICANS is another grand thing to treat in the same way. Avoid above all things dotting single bulbs in a straight line and at regular intervals. Cultivate thoroughly and prepare a border in reserve ground for

SOWING ANNUALS when favourable weather arrives. These will augment the supply of cut flowers for decorations, and save hard cutting from more prominent borders. There are so many annuals useful for the purpose, and such variety, that it is useless to enumerate them.

Tan-y-bwlch, North Wales.

J. ROBERTS.

FRUIT GARDEN.

PEACHES and NECTARINES OUTDOORS.—These will now require attention with regard to training. Do not lay in more wood than is really necessary to carry the desired crop. This is a point which one cannot lay too much stress on. Overcrowding of wood invariably follows by overcropping, two evils quite adverse to obtaining high-class fruits. Moreover, it is quite impossible for the young growths (the welfare of which next year's crop depends) to get the proper amount of light and air so necessary to them being well ripened by the end of the season, so that in training sufficient space should be allowed for laying in the new growth without impairing the current season's crop. In the case of young trees which have made over-strong wood, the shoots may be cut back a third of their length. This will encourage them to break freely from the centre of the tree and ensure a good foundation. If root pruning has not already been done it is not too late to do so now, provided it is done with care. It is impossible to obtain nicely-balanced trees if rank fleshy roots are allowed to grow at will. If the trees have been subject to the attacks of aphids, they should be washed with an insecticide before being trained.

MULCHING.—It is hardly possible to over estimate the value of mulching fruit trees, especially if they have attained to a good fruit bearing condition and the roots are near the surface. Pears on the Quince stock in particular should receive the benefit of a good mulching of rotten manure. At this time of year the wells in the farmyard are usually full to overflowing with rich liquid manure. An effort should be made to get this to the roots of old-established trees, which would greatly benefit thereby.

FIGS.—The earliest pot trees which are swelling their fruit will require more liberal treatment as the days lengthen and the sun gains in power. Liquid manure may be given at every alternate watering, and an occasional sprinkling of "La fruites" on the surface of the pots will be of benefit. Hard firing must be avoided at night. Rather increase it by day, and take full advantage of sunshine by shutting the house up early in the afternoon. Make free use of the syringe, and frequently damp down paths and all available space. Figs are very subject to red spider, which must be checked at once or it will quickly disfigure both foliage and fruit. Sponge the leaves with a weak solution of soft soap as soon as it is discovered. Stop all strong shoots at the third or fourth leaf, and remove any weak or useless spray.

CHERRIES.—Before the trees come into flower the house should be fumigated. This will go far towards keeping them free from aphids through the greater part of the season. The Cherry is very impatient to forcing, and care will be necessary in guarding against a sudden rise in the temperature when the trees are in flower. At this stage keep the house moderately dry, and create a constant circulation of air; but cold draughts must be avoided. Tap the trees at midday to disperse the pollen. Trees in pots will need careful watering till the fruits are swelling.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

ONIONS.—As Onions are natives of warmer climates than ours, and are lovers of a light rich soil, nothing is gained by sowing the main crop too early. At this season the soil is still cold, and rarely very dry. Under these conditions much of the seed will be likely to come to nothing, while the young plants will in all probability suffer from the attacks of Onion fly, the worst pest that Onion cultivators have to contend with. If, however, Onions are wanted early or for exhibition some seed may now be sown in boxes. This can be done in two different ways. If for ordinary kitchen use prepare a box as follows: Put a layer of crocks in the bottom with good soil, fill to within 1 inch of the top, sow the seed evenly and not too thickly all over the surface, cover lightly, water through a fine rose, and place the box in a house with a temperature ranging between 50° and 60°. When show bulbs are wanted it is a good plan to drain a box, and put an inch deep of well-decomposed cow manure over the drainage. Then prepare pieces of good turf 2 inches square, removing all grassy material, pack the turves firmly, upside down, on the top of the manure, taking care to keep them level, and about half-an-inch from the top of the box. Make a small hole in the centre of each turf, and in the holes sow two Onion seeds. Cover with a little fine soil, and at the same time make sure that all spaces between the turves are filled up. This box may now be treated as recommended for the first. When the young plants are of a size to judge discard weaklings, retaining the strongest only in each turf. The advantages of plants raised on turves will be obvious when the time for transplanting arrives. If carefully handled they can be transferred to the Onion plot without the slightest check to their growth, whereas those raised in the ordinary way are liable to be adversely affected by the change to permanent quarters. For show purposes Ailsa Craig and Sutton's Magnum Bonum still hold a high place. For the main crop Trebon's, Cranston's Excelsior, James Keeping, and Reading Onion are reliable varieties.

LEeks for show or early use may now be sown in small turves, as recommended for show Onions, and treated similarly; for a good all round variety I have found none to beat the Syon Leek.

CAULIFLOWERS and BRUSSELS SPROUTS.—Where a mild hot-bed is not obtainable, sow seed of each in boxes as advised for culinary Onions. Early London Cauliflower and Sutton's Exhibition Brussels Sprouts are good varieties.

SPINACH.—This favourite and wholesome succulent vegetable may be sown on a warm border in drills 1 inch deep and 12 inches apart.

CABBAGES.—When the ground is in a condition to tread upon, autumn-planted Cabbages should be attended to; remove all weeds, and liberally dust the plants with soot, then use the Dutch hoe to loosen the surface of the ground. Should any of the plants have long stalks draw a little soil around them to keep them in a steady position.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

ORCHIDS.

LÆLIA ANCEPS.—Where such plants as *Lælia anceps* and its many pretty varieties are grown, they will in most cases have finished blooming for the season. I may mention that at Burford we have had no perfect blooms of *Lælia anceps* or any of its varieties this year, every bud and flower having been quite destroyed by the fogs. It is now advisable to clean each plant thoroughly. Soon the last made pseudo-bulbs will commence to emit new roots, and no time should be lost in affording fresh rooting material to those that require it. Unless repotting becomes really necessary the plants had better be allowed to remain undisturbed. Even when repotting do not disturb the old roots more than is really necessary. It is not advisable or necessary to pot up the whole mass of old back pseudo-bulbs; leaving about three behind each leading growth will be sufficient. Either shallow pans or Teak wood baskets may be used, the base of the plants being kept about on a

level with the rim. Pot firmly in the following compost: Good fibrous peat, leaf-soil, and fresh sphagnum moss in equal parts. The whole should be cut up roughly and be well mixed together, adding a few broken crocks and a little coarse silver sand, so as to allow the water to pass freely away. Fill up around and between the roots and to within an inch of the rim with the compost, and surface with clean, freshly-gathered sphagnum moss. After repotting discretion is needed in watering the plants; afford just sufficient, using a fine sprayer to keep the surface-moss green and to prevent undue shrivelling of the bulbs and leaves. If too much moisture is given before the plants are established the young roots are liable to damp off. Until new growths appear keep the temperature of the house about 55° by night; 10° higher by day with sun-heat will be always beneficial, afterwards gradually increasing it as the season advances.

VARIETIES OF LÆLIA ANCEPS.—All the following varieties of *L. anceps* are well worth adding to the collection: *L. a. chamberlainiana*, *L. a. leana*, *L. a. Stella*, *L. a. sanderiana*, *L. a. Schroderæ*, *L. a. Veitchii*, *L. a. crawshayana*, *L. a. alba*, *L. a. Dawsonii*, *L. a. percivalliana*, *L. a. protheroeiana*, *L. a. waddonensis*, and many others.

OTHER LÆLIAS.—Such *Lælias* as *L. autumnalis*, *L. a. alba*, *L. gouldiana*, *L. albida*, *L. furfuracea*, and *L. majalis*, which come from higher elevations than *L. anceps*, after flowering should be kept comparatively dry at the roots. Place them in the lightest position available in the *Odontoglossum* house, and as soon as young roots appear the plants may be afforded fresh potting material, but they must be kept in the cool house until the growths appear, when they may be removed to the Mexican house. *Lælia rubescens*, perhaps better known as *L. acuminata* or *L. peduncularis*, is a very pretty Mexican species; some forms have white flowers, with a dark maroon blotch at the base of the lip, others are a mauve or rosy lilac. Its flowering season is in December. The plants of this species being now at rest, the cool atmosphere of the Mexican house is the best place for them, but when in full growth they should be suspended where a maximum amount of light is obtainable, the best position being close to a ventilator in the East Indian house or plant stove.

Burford, Dorking.

W. H. WHITE.

THE KITCHEN GARDEN.

YELLOW FLESH POTATOES.

EVIDENTLY seizing upon the recent discussion in the columns of THE GARDEN on the merits or otherwise of yellow and white flesh Potatoes, that eminent French firm Messrs. Vil-morin-Andrieux and Co. have issued a statement in relation to what they describe as the Potato question. There they point out the superior flavour found in certain French varieties, all of which have yellow flesh. So widely do our methods of cooking and consuming Potatoes differ from those in France that, let the varieties they specially commend be ever so well flavoured, it is doubtful, indeed, whether they will become popular in this country. We like our Potatoes cooked and served whole, and it is true, provided they are presented soft and mealy, we make flavour a secondary consideration. The French cook slices and serves up his *pommes de terre* in so many diverse ways, hence it is indeed difficult to detect flavour even if ever so pronounced. French growers specially commend the *Vitelette* as unrivalled when served as salading with anchovies. That is odd reading to us, but when they go on to remark that a good-sized yellow flesh Potato carefully washed, baked in its skin, and eaten with butter and salt is far away superior to any white flesh Potato, our insular tastes are appealed to directly, as the street baked Potato vendor can testify. But how few Potatoes are there that, similarly treated, then baked in hot ashes, well wiped and cut open, with pepper, salt, and butter added

do not form a most tasty morsel, let the flesh be white or yellow. But it may be admitted as undoubtedly true that a yellow flesh Potato has the greater flavour, yet the colour must be only light, or otherwise a very yellow flesh variety is apt to be close and waxy.

Probably one of the best yellow flesh Potatoes ever in commerce was Paterson's Victoria, yet the real colour was intermediate between white and yellow. The old Yorkshire Regent had whiter flesh, yet it was of reputed excellence. Still, it is to be freely admitted that the yellow tint and flavour are far from being common in modern varieties, and if there be that great excellence of flavour in the French varieties mentioned by Messrs. Vilmorin and Co., would it not be worth while using some of the best as parents, just to see how far it may be possible to infuse their colour and flavour in our better shaped, heavier cropping, and more marketable varieties. Some Potato raiser should try these French tubers for that purpose. Our great difficulty for the past sixty years has been that the disease has found in varieties of the highest quality the most favoured ground for its deadly operations. Between saving crops from destruction on the one hand, and preserving flavour and great constitutional weakness and liability to disease on the other, we had to face a grave problem, and more effort has been devoted to saving stocks than to the latter consideration, and, as we have seen, with exceeding success. Still, there is no reason now why some effort to win back the old flavour and colour of half a century since should not be made. It is work such as an amateur, having ample time and room and plenty of enthusiasm to sustain him under probable and oft disappointments, may well undertake. After all, Potato crossing and seedling raising, if not always a profitable occupation, is at least a most interesting one, while great possible good may result.

A. D.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

THE PELICAN FLOWER.

(ARISTOLOCHIA GIGAS VAR. STURTEVANTII.)

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This variety differs chiefly from the species in having larger flowers. It is impossible to adequately describe the plant. Ten or twelve flowers open or opening at one time form a very striking object. Once seen it is seldom forgotten, fifty to a hundred or more flowers are often produced by one plant in a year. Should extra large flowers be required disbudding must be practised. It was sent to Kew by Mr. E. D. Sturtevant of Bonderton, New Jersey, in 1890. This gentleman obtained it from a resident on the Hudson River. It flowered in the following year, and soon after this it was noted in the horticultural Press as flowering at Cambridge and Birmingham Botanic Gardens, Park Place, Henley, and other places.

The leaves are large and heart-shaped, the stem climbs to a height of from 15 feet to 20 feet. Some of the larger flowers often measure 15 inches or 16 inches across, and 20 inches to 22 inches in length, with a tail upwards of 3 feet in length. This latter appendage forms a convenient ladder for insects to reach the flower. The inside of the throat is lined with hairs turned downwards, evidently to prevent the escape of insects when once inside. The mouth of the tube is velvety purple, the remainder of the flower being creamy yellow, mottled with purple. It does not last long when fully expanded, and emits a rather obnoxious odour.

It is easily grown in an ordinary stove temperature, either planted out in a border or in a pot, the former for preference, as it grows vigorously. The soil is fibry loam, decayed manure, and sharp sand. Cuttings root freely in a propagating frame with bottom-heat. The illustration is

from a photograph taken last autumn in the Victoria house at Kew. It is sometimes known as the Pelican Flower.

A. O.

MR. BUNYARD ON FRUIT CULTURE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—When I see Mr. Bunyard's name connected with anything pertaining to fruit culture I am always anxious to read it, feeling sure that I shall profit by it. I was, therefore, not a little disappointed at what he is reported to have said *re* Colonial fruits in your issue of the 14th inst. Does Mr. Bunyard really mean to say that foreign Apples are sweeter and better than English? If so, I must disagree with him entirely. I am not writing without some experience of foreign Apples. In years of scarcity I have been a purchaser of various sorts of Apples—Tasmanian, Canadian, &c.; but I have never tasted one equal to a Cox's Orange Pippin, Claygate Pearmain, or Ashmead Kernel, and many others I could mention. These foreign Apples are certainly good to look at, and no doubt will always command a ready sale on that account, but I cannot believe that they are richer or equal in flavour to our best English Apples. Again, the present price of Cox's Orange Pippin bears out this statement. My experience of these foreign



THE PELICAN FLOWER (ARISTOLOCHIA GIGAS VAR. STURTEVANTII) AT KEW.

Apples is that they lack juiciness and flavour. They are mealy and often very tough. This is not to be wondered at, for these Apples must be gathered and packed before they are thoroughly ripe.

Cirencester.

T. ARNOLD.

TREE CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In a note on these Carnations, on page 407 of THE GARDEN for December 17 last, Mr. A. Hemsley writes: "English raisers have certainly lost ground by discarding the fringed-petalled varieties, which were the first to be grown for winter-flowering, and it would seem that the Americans have greatly profited by keeping to the true type of what was first known as the Tree Carnation." Now this is a highly interesting communication if it can be supported by fact. Mr. Hemsley does not give evidence in support of the statement, and I should like to ask him for his proofs. I do not know how far your correspondent is going back when he speaks of those first known as the true type of these flowers, but if we take

some of the earliest sorts that became widely known and popular, we have as a white-flowered variety La Belle, raised fifty or more years ago, I believe, Mr. S. Hodges of Cheltenham. This was a Tree variety without doubt; indeed, I have seen the old plants of it 15 feet high. But the flowers were not fringed-petalled in the same sense as are some American Carnations, and even these are much varied in this respect. This old variety, La Belle of English birth, is not unlike the modern Glacier of American origin in so far as its petal edge is concerned. Again, that universal favourite Miss Joliffe could hardly be regarded as a much fringed-petalled variety, and probably no Carnation was grown more than this. Then, again, there is a wide difference in the American sorts. Take, for instance, one of the earliest that gained any popularity in England, *i.e.*, William Scott. The edges of the petals were more like the teeth of a rip-saw, but, if this is compared with Daybreak or America, we have at once a type of flower quite distinct with regard to the petal edge. It would therefore appear that the Americans consider first the merit or otherwise of the variety, and the true-ness of the type to the supposed original later on.

When Mr. Herrington was last in England we were looking at some exhibited flowers of Mrs. Lawson at the Drill Hall, when the former exclaimed, "I am more and more convinced each time I visit England that our American Carnations are not much good without American sun," and it is just this that so materially assists the planted out or field-grown Carnations in that country. There the plants make as much headway in weeks as ours do in England in months, while the presence of sun in winter stands the opening flowers in such good stead when we in the London district are helpless against fog.

For these reasons growers will do no good to themselves or their stocks of Carnations by planting out. This has been tried again and again without success. A score of years ago Messrs. Hooper and Co. of Covent Garden planted out their winter Carnations in this way and obtained good bushes, from which not one-half of the flowers ever opened. Others have had similar results, while their neighbours with pot culture have produced equally large bushes to flower well. There is no doubt in my mind that there are in England to-day men sufficiently wide awake to try the planting out system if they deemed it advisable, if only for stock purposes, while for perpetual blooming these same men know that pot culture is best.

Hampton Hill.

E. H. JENKINS.

FLORAL MOPS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I sympathise heartily with "Another Reader" (page 44), and would point to the two illustrations of rational culture given on page 43 by way of contrast to the gawky specimens produced on the mop system. On the other hand, we cannot blame our growers for using every cultural means of showing what a variety is really capable of producing in the way of flowers, and this inevitably involves that concentration of all the plant's energies in one or two blooms on mop lines. It is really the fault of the plants, not of the grower, and we may be glad that such a plant as the Queen of Flowers—the Rose—has sufficient faith in its own intrinsic beauty to refuse to respond to similar concentration, and so save us the infliction of Roses as large as full-sized Cabbages, outrivalling even the Chrysanthemum and its fellow culprit, the Malmaison Carnation, which is another monstrosity.

IGNORAMUS.

THE BRITISH GARDENERS' ASSOCIATION.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Small gardeners' associations are formed all over our kingdom for mutual benefit and improvement. Why, therefore, do not all gardeners support a national institution with branches permeating the British Isles? The initial cost is small, and each member would have a voice in its

government, so that its rules and laws would of necessity be those made by members. There are pessimists who decry the initial prospectus, as if that were the beginning and ending to such an organisation. The promoters evidently, "from the small fee charged annually," wish to appeal to all gardeners, so that all may join forces to bring about more tolerable conditions. I hope the educational element will be brought prominently forward, and that facilities for lectures in all branches of horticulture will be given at each centre. Views thrown on the screen and described clearly would be a step in the right direction. Many of our young and even older gardeners are not sufficiently educated in such details to grasp all that a lecturer wishes to convey without such aids. At present there is no system worthy of the name for assisting gardeners to meet with suitable situations. This association would be in a position to give information to employers and employed. Therefore let each member strive to make it successful, and so endeavour to help his fellow gardeners. NORTHERNER.

BAMBOOS IN THE OUTDOOR GARDEN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am obliged to "F. C." (page 44) for adding to my list of hardy Bamboos, but the fact is I omitted several which grow freely here in various parts of the grounds and woods, and only mentioned a few representative ones planted in the glen under notice. We have both *Phyllostachys nigra* and *P. n. punctata*, also the supposed *Arundinaria Falconeri*, but not *A. nitida*. The two former are fine things and perfectly hardy, but the latter, being so susceptible to injury from frost, was not included in the glen planting, the main object of which was to create a winter picture. Hence it is obvious that it would not be of much use in that connexion. Clumps, large and small, of *A. Simoni* have flowered freely here as elsewhere; but the effect on the plants is not so pronounced as in some places, owing to the fact that none of the blooms were left to mature, for the field mice (a terrible scourge here) climb up the stems and eat every flowering spray while still green and succulent, so the plants do not present quite such a withered appearance during summer as some of my neighbours' clumps do, who are not troubled by such vermin. In this case good comes out of evil. *A. Simoni* grows upwards of 20 feet high and forms a fine object, and some of the other kinds are not much less.

The Gardens, Tan-y-bwlch. J. ROBERTS.

FLOWERS IN BRITISH COLUMBIA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—As a mistaken opinion seems to prevail about the climate here on the coast of British Columbia, to show that we have not had a very hard winter so far I have the following flowers blooming in my garden at the present time (January 10): *Doronicum*, *Stock*, *Geranium*, blue, yellow, double white and single white *Primroses*, *Anemone*, *Roses*, *Pentstemon*, *Violets*, *Chrysanthemums*, *Pansies*, double white *Arabis*, *Pyrethrum*, *Calceolaria*, *Periwinkle*, *Marguerites*, *Carnations*, *Cineraria stellata*, *Shasta Daisy*, and *Snowdrops*.

Victoria, B.C. F. B. PEMBERTON.

BRITISH v. COLONIAL APPLES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In a comparison made between home-grown Apples and those from the Colonies, Mr. Bunyard (page 37) intimates that in point of quality the latter stands highest, and he still further intimates that the British public are labouring under a delusion in assuming, as they have done, that their fruit is the best in the world. Mr. Bunyard has attained to such a high position as a practical pomologist that his views are always accepted with much respect, but I am sure many will be wondering why he has taken up so suddenly such a serious attitude. His advice to the home grower to pay greater attention to the culture of good kitchen Apples with, it is presumed, an inference to let

drop the progress of planting dessert sorts, will come as a surprise, for hitherto the opinion has obtained that British Apples are better in almost every respect save colour. The outlook certainly does not appear favourable for the British producer when we hear of such vast tracts of land being brought under Apple culture in the Colonies and America, and so large an extent of their crop is destined for the home markets. Mr. Bunyard's latest dictum certainly, if borne out by facts, is anything but encouraging to the nurseryman or fruit grower, for if our markets are to be monopolised by foreign fruit what is the prospect of the Kentish, Hereford, Worcester, and other county orchards. I do not presume to compare qualities of Colonial and British Apples, but I am persuaded that colour is a great and stimulating factor favourable to the foreign fruit. Opinions would seem to differ materially when comparisons are made between home and Colonial-grown Apples. Some extol, while others decry. This was specially noticed at the recent exhibition of the Royal Horticultural Society. Messrs. Cannell made a determined effort to arrest the flow of popular opinion which has hitherto been all in favour of the fruit from over the seas. It would appear that on this occasion the Kentish fruit made a most favourable impression on the many interested spectators, and restored the old feeling somewhat that England can still produce fruit as good as any other country, given a favourable season. It is a well-worn story how the Continental fruits are graded and temptingly packed for the British markets, and it is further argued that until we take a lesson from them so long will this stigma remain. At the great fruit show at the new hall last year there were examples of grading and packing quite equal to any we have seen from the Colonies or the Continent. It is, however, useless to expect great reforms from individual efforts. The combination which Mr. Bunyard urges must come from united action, and I have long since felt that if fruit could be dealt with in a manner similar to that adopted by the dairying industries of this country that profits would increase, and apparently worthless fruit converted into Cider and preserve. After all it is not so much the horticultural fruit grower that has offended in the matter of poor market samples and low prices as the farmer. When fruit of low quality is plentiful it undoubtedly brings down at the same time the value of better fruits, and I hold that if more of the orchard fruit was converted into Cider and kept out of the markets and fruit shops things would improve. A large and representative body has been organised for the improvement of the Potato. Cannot something similar be devised for the almost equally indispensable Apple? Or cannot the two interests be dealt with jointly? It is no doubt a great question. It seems foolish to go on continually planting more and more fruit trees if they are not likely to provide a living for the cultivator of the future. The decrepit British orchard on the one hand, and the imports from other lands on the other, promise to crush the chances of the deserving class of growers. A county scheme for effectually disposing of the low grade fruit seems to me the only means of redress, and a scientific method of Cider manufacture would be a great help towards this end.

Wills.

W. STRUGNELL.

MESSRS. ALEX. DICKSON AND SONS' ROSES.

(Continued from page 60.)

GEORGE DICKSON.—This is a grand Rose of magnificent colour of the Horace Vernet type, a fine flower that will some day create a sensation.

Lady Ashtown.—The plants of this Rose were literally covered with flowers. One young plant had twelve blooms all perfect at the time of my visit. It is undoubtedly distinct, with fine long buds, something between

Mrs. John Laing and Mrs. W. J. Grant in colour; a grand bedding Rose, and no doubt useful for exhibition; distributed this last autumn for the first time; a Hybrid Tea.

Irish Engineer.—I think the most vivid scarlet flower I have yet seen; large flowers; single, as its name shows; growing on not very tall plants and produced on rather short stalks, but a flower that once seen will be wanted.

Hugh Watson.—The only Hybrid Perpetual that Messrs. Dickson are sending out this year; of fine form and good colour; a good crimson that is quite up to exhibition standard. The flowers are large, the buds pointed, and the colour stands well; a valuable and welcome addition to the crimson Hybrid Perpetuals.

C. J. Grahame.—This Rose struck me as being most appropriately named; there was something reminiscent in its bright clear colour of that rosarian who did so much for the flowers he loved. A bright brilliant crimson not yet in commerce; growth vigorous; foliage large, but it is the colour that strikes one. It is, I think, without a doubt the most intense coloured variety yet raised. I venture to prophesy the highest of honours for this beautiful flower.

Mrs. Myles Kennedy.—This is a lovely Hybrid Tea—more Tea than Hybrid I should say. Impossible to find a fault with this Rose. The colour is satiny white, edge of petals delicate pink; flower very large, and of splendid form; growth vigorous; altogether a very distinct and beautiful exhibition Rose of first quality.

Harry Kirk (H.T.).—This Rose has been much admired wherever it has been exhibited, notably in Messrs. Dickson's stand that was awarded the Barham Cup at the Temple National Rose Society's show last year (1904). It is a fine Rose, of a colour that is much wanted in the Hybrid Tea class, namely, a deep yellow, beautiful either as a buttonhole or garden Rose, that will also find its way on to the exhibition bench. It is a vigorous grower, and exceedingly free bloomer. The plants I saw were covered with flowers.

Duchess of Westminster (H.T.).—If one can imagine a Rose half-way between Killarney and Mrs. W. J. Grant, with petals half as large again as either, and growth and constitution equally improved, one has a very fair idea of this hybrid. I think this Rose, also C. J. Grahame, was given an award of merit at the Holland House show in 1904. It will make a grand Rose for decoration.

Lena (T.).—Those who like Beryl will find here a great improvement on that variety. Lena is better in colour, growth, and freedom of bloom, and is altogether a beautiful Rose.

Irish Elegance (H.T.).—I see this is the last of the named varieties that I made a special note of, not because I had come to the end of them, but my worthy guides simply would not give me the time to make the notes. But Irish Elegance is an excellent Rose to finish with. It is a gem of the first water. I have no hesitation in placing it first among all the "Irish" Roses, namely, singles. The colour is all shades of apricot, but it is a very difficult flower to describe accurately; suffice it to say that in my opinion it is the most beautiful of the whole series, and it will be very much sought after. It is vigorous in growth, flowering as long as the weather will permit it with extraordinary freedom.

With Irish Elegance my notes on the named varieties of the new seedling Roses draw to a close. There were, as I have already mentioned, many others, also scores at present only designated by a number, but equally, and in

some cases more, beautiful. No useful purpose would be served by writing of them; those who are especially interested will find their way, as I did, to Newtownards, and will meet, I doubt not, with an equally hearty welcome. Since the first portion of these rough notes were written, I have been asked by a correspondent to give the names of those Roses that I owe to Messrs. Dickson, and as the same may be interesting to more than one of your readers I send you the list herewith.

LIST OF ROSES RAISED BY MESSRS. ALEXANDER DICKSON AND SONS.

Ethel Brownlow, T.	Mrs. E. Mawley, T.
Lady Helen Stewart, H.P.	Bessie Brown, H.T.
Earl of Dufferin, H.P.	Rosslyn, H.P.
Caroline D'Arden, H.P.	Liberty, H.T.
Mrs. James Wilson, T.	Lady Mary Corry, T.
Lady Arthur Hill, H.P.	Lady Clamorris, H.T.
Jeannie Dickson, H.P.	Gladys Harkness, H.T.
Marchioness of Dufferin, H.P.	Irish Modesty, S.
Margaret Dickson, H.P.	Irish Glory, S.
Marchioness of Londonderry, H.P.	Irish Beauty, S.
Mrs. R. G. Sharman Crawford, H.P.	Robert Scott, H.T.
Marchioness of Downshire, H.P.	Mildred Grant, H.T.
Sheila, H.T.	Mamie, H.T.
Kathleen, H.T.	Lady Moyra Beaulieu, H.T.
Mrs. W. J. Grant, H.T.	Duchess of Portland, H.T.
Marjorie, H.T.	John Ruskin, H.T.
Mavourneen, H.P.	Edith D'Ombrain, H.T.
Helen Keller, H.P.	Bob Davidson, H.P.
Tom Wood, H.P.	Ards Pillar, H.T.
Ellen Drew, H.P.	Alice Lindsell, H.T.
Muriel Grahame, T.	Irish Star, S.
Climbing Kaiserin Augusta Victoria, H.T.	Irish Pride, S.
Robert Duncan, H.P.	Irish Brightness, S.
Countess of Caledon, H.T.	Gertrude, H.T.
Ards Rover, H.P.	Alice Grahame, H.T.
Killarney, H.T.	Florence Pemberton, H.T.
Daisy, H.T.	Irish Harmony, S.
Beryl, T.	Irish Engineer, S.
Meta, T.	Rev. David R. Williamson, H.T.
Ulster, H.P.	Mrs. David McKee, H.T.
Shandon, H.T.	Mrs. Conway Jones, H.T.
	Lady Ashtown, H.T.
	Hugh Watson, H.P.
	Dr. J. Campbell Hall, H.T.
	Dean Hole, H.T.

Brantwood, Balham. H. E. MOLYNEUX.

THE FERN GARDEN.

THE STAG'S-HORN FERN.

(PLATYERIUM ALCICORNE.)

IT may not be generally known that this is one of the best room plants in cultivation. Very few fine-leaved plants will bear the confined atmosphere of a living room throughout the winter without showing signs of suffering, but this Fern is apparently quite indifferent to the dry atmosphere and impure air of a constantly heated living room. For two years I had a plant in a 6-inch pot in a room constantly occupied throughout the year; it never lost one particle of its verdure, and grew, forming new shields just as freely as if it had remained in a glass house all the season through. There is something very quaint and distinct about this Fern, and there are few better things for baskets in a cool house. Unlike Ferns generally, it is not very sensitive to neglect in watering; in fact, I have known plants to remain without water for several days and show no signs of distress. In potting this Fern the crown should be kept well above the rim of the pot.

Byfleet.

J. C.

THE SOFT SHIELD FERN.

(POLYSTICHUM ANGULARE.)

WITH the single exception of the Hart's-tongue Fern, which is so often the congenial and yet contrasting companion of the Soft Shield Fern in the hedges and elsewhere of our Fern counties of England and Ireland, though both are very rare in Scotland, it may safely be asserted that no evergreen Fern in all the wide world has yielded a tithe of the varieties or assumed so many diversely beautiful forms as *P. angulare*. The quite distinct

and easily distinguishable forms run into hundreds, and are only eclipsed in diversity by those of the Lady Fern, which, being deciduous, does not contradict our opening claim. The Soft Shield Fern is botanically classed as a form of the Hard Shield Fern, *P. aculeatum*, also a native, but the British Fern fancier regards it as quite distinct, owing not merely to its softer texture, but also to its different make and greater delicacy of cutting, and a further difference is seen in the fact that *P. aculeatum* extends much farther north, being plentiful in the Scottish glens, where *P. angulare* is never seen. *P. aculeatum*, too, though it has varied considerably, has done so on a far smaller scale than its relative, and has never afforded examples of that marvellously fine division seen in the best plumose forms of *P. angulare*. It is, indeed, in this special connexion that *P. angulare* stands absolutely alone in the Fern world, even that wonderful New Zealand Fern *Todea superba* being quite eclipsed by some of the best of the angulare forms. Normally, the Fern is only twice divided, the lance-shaped fronds bearing side divisions or pinnae, consisting of parallel rows of pinnules, shaped something like a fingerless glove with the thumb at an angle of 45°, this thumb being sharply pointed, and the rest of the pinnule delicately saw-toothed with points or bristles, which justify the popular name of the Prickly Shield Fern. This is the normal or common type, but it is not infrequently found to have these pinnules divided again into pinnulets, these last, again, assuming the glove and thumb form on a smaller and more slender scale. The spores of such forms have under culture yielded plants still further divided so that in the extreme and most beautiful cases we have division extended to the fifth degree, i.e., with almost hair-like segments, and so multiplied in number that the fronds appear like masses of fine moss.

It is a curious fact that this development has not been the result of selection for many generations, but of only one counting from the wild thrice divided sport, the spores of which have at once yielded a batch of these wonderful types. Fortunately for the propagator of these charming forms, plants of this type are very prone to produce bulbils in the lower parts of the fronds, and these may be fairly relied upon to reproduce the parental form exactly, while the spores, which are very sparsely yielded, vary much in their resulting progeny. Besides this plumose section, which is a large one, and the best of which figure in such catalogues as those of H. Stansfield and W. F. Birkenhead, both of Sale, near Manchester, and especially in "The Book of British Ferns" (Newnes, 3s. 6d.), wherein they are all fully described, there is a large range of crested or tasselled varieties originating from wild finds which are very beautiful, and also a number of what may be classed as curios, such as revolvens, with the fronds rolled up into tubes, and with convex side divisions to match, cruciatum with the pinnae in opposite pairs at right angles, grandidens with all divisions shortened more or less abruptly, and so on.

The bulbiferous or proliferous section is also interesting, as it bears a great number of bulbils in the axils of the pinnae and minor divisions, forming under favourable circumstances a mossy band down the centre of the frond. This section has usually the glove-shaped pinnules very narrow and acutely pointed, so that it is also termed the acute lobed section. This wide varietal capacity, coupled with the thoroughly evergreen nature of *P. angulare*, renders it an invaluable Fern for cool or cold conservatories facing north, and a collection of some of the best is undoubtedly far better worth cultivating than many exotics. It is not particularly dainty as to soil, and the usual compost of loam and leaf-mould in equal parts, and a liberal dash of coarse silver sand suits it admirably. Being hardy, it is also, of course, suited for outdoor culture in shaded rockeries, and in thoroughly congenial situations of this kind grows even better than under glass, though, of course, evergreen as it is, the fronds are apt to suffer from winter stress and storm.

CHAS. T. DRYERY.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

NAMES OF PLANTS.—W. J. H. M.—*Hamamelis japonica*.—Lady M.—*Lonicera fragrantissima* (the winter-flowering Honeysuckle).—Delta.—1, *Ophiopogon Jaburan argenteo variegata*; 2, *Gymnogramme tartarea ochracea*; 3, *Eulalia japonica variegata*; 4, *Asparagus Sprengeri*; 5, *Adiantum cuneatum*.

THE NATIONAL SWEET PEA SOCIETY (S. C. H.).—The address of the secretary is 32, Dault Road, Wandsworth, S.W.

BENARY (A New Reader).—M. Benary's address is Erfurt, Germany.

THE BLUE-FLOWERED COLEUS (J. P.).—The plant is *Coleus thyrsoideus*.

TO PRESERVE TUBS (C. B. A.).—A good and cheap material for coating the insides of plant tubs is pitch, which must be made hot in an iron pot (an old pail will do) and applied with a rough brush. It is very necessary to keep it hot while working, as it sets so quickly. White paint would certainly injure the roots, but if you wish it for appearance sake you may paint the inside of your tubs at the top, that is to say, just the portion which will be visible when the plants and soil are in their places. This when thoroughly dry will not harm the roots of any plant. Of course you may paint the outside any colour you please.

VARIOUS SUBJECTS (Arthur Evans).—1. The principal points of *Gladioli* for exhibition are large, well-formed flowers of a good, firm texture, so that a considerable number of them are open on one spike at the same time; clear and decided colours for flowers of a dull hue are not nearly so effective on the exhibition-table as the purer coloured ones. This applies to the varieties of the *Gandavensis* section, as those belonging to the *Nanceanus* and *purpureo-auratus* groups seldom carry as many flowers on a spike as the *Gandavensis*; but this is compensated for by the large size and bright colours of some of them. 2. Both English and Spanish *Iris* should be planted from the middle of September to the end of October, or at the very latest the second week in November, as if kept out of the ground after that time they lose a good deal of their vitality. 3. As you have no other means of raising seed of *Nicotiana glauca*, your better way will be to bring them on in a light position in a window. Take a clean pot 5 inches in diameter, and place broken crocks in the bottom to nearly half its depth, then fill to within half an inch of the rim with a compost made up of equal parts of loam and leaf-mould, with a liberal sprinkling of silver sand. A few of the rougher portions should be picked out and placed immediately over the crocks, then put in the remainder of the soil, press down moderately firm, and make the surface level. Water through a fine Rose, and while the soil is still wet sprinkle the seed on the top, and cover very thinly with a little fine soil; then lay a pane of glass over the top of the pot, as this will serve to maintain an even state of moisture. Care must be taken that the sun does not shine directly on the glass, as if this takes place the heat set up would be likely to scorch the young plants. At the same time, as much light as possible should be given them. If sown early in April the seed will soon germinate, and when large enough the young plants may be put singly into small pots, from which they may be planted out when the weather is safe for this to be done.

CINERARIA LEAF SPOILT (*E. E. L. F.*).—Your *Cineraria* leaf presents just the same appearance as those in the London district which underwent the ordeal of that terrible fog so generally experienced just before Christmas. Apart from that we can see nothing to account for the damage, except that the leaf seems particularly soft, in which stage it would be more easily affected by any adverse conditions than if of a firmer texture. A free circulation of air is very helpful in promoting good healthy foliage. We do not think it is caused by anything in the soil, but of course cannot be sure on that point.

TUBEROUS BEGONIAS (*Wills*).—In the first place some strains of tuberous *Begonias* are the result of a long series of cross-fertilisation and selection, which, if carried out for years, result in plants possessing good qualities. Others again are of a poorer class, and however these may be grown they will not equal the first-named. Commencing with dormant tubers in the spring they are best if started in comparatively small pots, using for the purpose a mixture of one half loam, and the other half made up of leaf-mould and sand, enough of this last being used to be readily visible throughout the compost when thoroughly mixed. When shifting into larger pots rather more loam soil may be added. Care must be taken not to allow the roots to become pot-bound in the small pots before shifting them into the larger ones, otherwise the plants will be checked. As the pots get full of roots a dose of weak liquid manure and soot water mixed about every ten days will be beneficial, as the production of large fleshy blossoms imposes a considerable strain on the plants. When first potted, say in the beginning of March, a night temperature of 50° to 55°, running up to 70° on sunny days, will be enough. As spring advances and the outside air gets warmer the thermometer of course may be allowed to go up higher, till by the end of May the temperature of the outside air will suffice. *Begonias* love a good light structure, yet at the same time it is necessary to shade them during bright sunshine. The most satisfactory way of doing this is by blinds, as permanent shading is very injurious. Give a free circulation of air in all stages of growth in order to encourage a sturdy habit.

TUFTED PANSIES FOR NARROW BORDER IN FRONT OF SOUTH-WEST WALL (*Cromwell*).—There are few subjects to compare with the Tufted Pansies for the border, 4 feet wide, you so clearly describe in your query. With a south-western aspect these plants succeed remarkably well. Our difficulty in recommending other subjects is increased, because they must be of dwarf growth, such as you may be able to step over to attend to your Roses on the wall and see to their requirements. You say it is "essential" that the plants be low in front. The Tufted Pansies, of course, answer your purpose admirably, and although these plants do not generally succeed so well in the same position two years in succession, when grown under ordinary conditions we think they should do well if you are prepared to take special pains with them. We would advise you to dig the border deeply at once and leave the surface rough until the middle of March. At the present time also dig in a heavy dressing of good manure, applying also a free dusting of soot or lime. Left thus for two months, the frost and weather will do their beneficent work in pulverising and sweetening it, and many of the constituents abstracted from the soil by these deep-rooting plants will, by these means, be replaced. Previous to planting in the spring the ground should be lightly forked over and broken up, and, if it be possible, add at that time a slight dressing of well-decayed manure, such for instance as one may get from an old hot-bed, the well-being of the plants should then be assured. If possible, also procure fresh stocks of Tufted Pansies, and, if you would like us to advise you, we shall be pleased to recommend sorts of the colours you desire.

WHEN TO PLANT TUFTED PANSIES (*Mr. M.*).—Early March is generally recommended for planting the Tufted Pansies, and when the weather is suitable that period is an excellent one. There is no hard and fast rule, however, and planting may

be done at almost any period, so long as the weather is open and free from anything approaching severe frosts. We have planted Tufted Pansies in November and December, and in limited quantities in January and February also. Our plants, however, have always been raised in beds in the open. The cutting-beds are made up in the autumn in a sheltered corner of the garden, with a warm aspect if possible. In such positions the cuttings root quickly. They have no covering whatever, no matter how severe the weather may be, and in the course of the winter season the young plants develop into little clumps, having numerous shoots in embryo under the surface soil. With the approach of the more genial weather of spring the plants make wonderful progress. Plants of this kind reared in hardy conditions may be lifted at almost any time and planted without the fear of losing any of them. If you have to procure your plants from the Pansy specialists we fear you could not take such liberties with the specimens they send you. Almost invariably they insert their cuttings in closed frames, and after rooting they are maintained in these conditions until despatched in the spring. Treated in this way they are likely to suffer from cold and cutting winds when planted at too early a date. They always look fresh and green when received, but they are likely to fail when planted before March.

PRESERVING CUT POINSETTIAS (*Amateur*).—Poinsettias may be preserved if immediately after they are cut the ends to the length of about an inch are immersed in boiling water for two minutes. This does not prevent the absorption of water by the stems; consequently the bright green foliage as well as the coloured bracts are preserved in a perfectly fresh state. Sealing the ends with a red-hot iron is adopted by some people; but whilst this prevents bleeding, it checks the absorption of water, consequently whilst the bracts are preserved in a fairly fresh state, the leaves droop quickly.

GRASS SEEDS (*Fredenberg*).—Different establishments have their various mixtures of Grass seeds, and we think your better way would be to communicate with some large business house of repute, state as near as possible the conditions, and leave them to furnish the best mixture for the purpose. At the same time the following mixture can be relied upon as a good one; indeed, according to the opinion of an authority on the subject, it is one of the very best: Perennial Rye Grass (*Lolium perenne*), 10; fine-leaved Fescue (*Festuca tenuifolia*), 5; Meadow Fescue (*Festuca pratensis*), 5; Hard Fescue (*Festuca duriuscula*), 2; Red Fescue (*Festuca rubra*), 3; smooth-stalked Meadow Grass (*Poa pratensis*), 5; Evergreen Meadow Grass (*Poa nemoralis sempervirens*), 5; Cock's-foot (*Dactylis glomerata*), 2; crested Dog's-tail (*Cynosurus cristatus*), 3. The figures indicate the different proportions of each in the mixture. To ensure success the soil should be dug at least 15 inches deep, all weeds being carefully removed. If of a poor nature some good farmyard manure should be mixed with the soil, but it must not be too near the surface, otherwise it will influence the growth of the young Grass, which will appear patchy. This work should be done in the winter, and the ground allowed to settle till the spring, when it must be made even with a rake, all stones cleared from the top, and rolled till a firm even surface is obtained. For sowing a calm day should be chosen, as it is impossible to evenly distribute such light seed as Grass during windy weather. Before sowing roughen the surface of the ground with a rake, then sow broadcast, first up and down the piece, and after that crosswise, as in this way an even distribution of seed is ensured. When the seed is sown rake the surface again, and, if dry, roll it, but if of too wet or retentive a nature the ground should not be rolled after sowing. The best time to sow the seeds is early in the month of April (at least, this holds good in England), and the quantity needed is 80lb. per acre. Small birds are very fond of the seed, on which account precautions must be taken to keep them away till the Grass is well up, which, should the weather be

showery, will not take long. When the Grass is sufficiently advanced it may be gone over lightly with a sharp scythe, and frequently rolled with a light iron roller; in fact, the more it is lightly mowed and rolled during its earlier stages so much the better will it be. Of course, a sharp look out must be kept for all weeds, which must be at once eradicated. Each February a top-dressing of one of the many approved fertilisers will be beneficial. Messrs. Sutton and Sons of Reading publish a handbook on "Lawns," which should be of great help to you.

TREATMENT OF HYDRANGEAS (*H. S. Simpson*).—Few plants are better suited for early forcing than the common *Hydrangea* (*H. hortensis*), and the white variety *Thomas Hogg* is equally serviceable and cannot be too highly recommended. We have had both in bloom early in February, and although the colour was not quite so good as in plants flowering when we get more daylight, they were very useful, especially as they were among the few subjects which did not suffer from the London fogs. For forcing, the plants should be propagated early in the summer. The soft young tops will strike freely in a close pit where there is a good bottom-heat. As soon as rooted they should be removed and gradually exposed. When sufficiently established they may be potted into 4½-inch pots, using good rich loamy soil. The plants should be grown in the open where they are fully exposed to the sun. Towards the autumn they should be kept rather dry to encourage them to ripen off early. If treated too liberally the plants will run up tall and will not set their bloom so well.

VIOLAS IN WINTER (*T. G. Kemp*).—The tufted Pansies may be almost regarded as alpine plants, and the newer race of plants more particularly so. As the cuttings were inserted during late August, September, and October, we have every reason to believe that the resulting plants will winter very well without any special covering or protection. Do not be misled by those who would tell you that protection by the aid of frames is absolutely essential. You certainly did well to run 6-inch boards round your cutting-beds, as this is an excellent check against cold and cutting winds, and affords just the necessary amount of comfort the plants require until the spring. Do not give yourself any anxiety because of their appearance. Your plants during the winter and early spring may not look so well or so promising as those raised in frames, but when the planting time comes round in the spring those raised in the hardier manner that we have advocated should have many growths in embryo just underneath the surface soil, and these quickly make charming tufts. Another advantage in planting tufted Pansies raised in the open is that they never suffer very materially from the cold and cutting winds in the spring that cause less hardy plants to shrivel and suffer in consequence. Keep the worm-casts pressed down or the plants may fail.

SUMMER-FLOWERING LILIES FOR SANDY SOIL (*A. P.*).—There are many Lilies that may be planted quite safely during the next eight weeks, and these are the showiest of their race. *L. auratum* (August) and its many forms are good, *L. Batemannia* (August), *L. Hansonii* (July), *L. longiflorum* in about six varieties (July), *L. tigrinum splendens* (July-August), *L. elegans* or *thunbergianum* in about ten varieties (June-July), and *L. umbellatum* in four varieties (June), should all grow well in your sandy soil, and flower freely this season. Plant deeply, and if the soil is poor enrich with fresh kitchen garden soil that has been manured a year ago. If the site to be planted is bare, plant low-growing, shallow-rooting perennials to form a carpet of leafage from which the Lily stems would rise, and into which they could root. A temporary soil covering, to last one season only, is possible by sowing *Gypsophila elegans*, *Nemophila*, the Swan River Daisy (*Brachycome*), or other annuals that may be preferred, whose roots do not descend deeply and whose growth is light.

BOOK ON THE SEED TRADE.—"R. E. A." writes: "Could you inform me of a book that will be useful to a lad that is just starting in the seed trade (both trade and retail bulbs and seeds)? [We do not know of such a book, but perhaps some reader could help our correspondent.—Ed.]

ERADICATING LIVERWORT ON A ROCK GARDEN (Mrs. S. M.).—The safest and most effectual way of getting rid of this troublesome plant in the rock garden is by scraping and removing it from the stones and surface of the soil. It may be killed by means of weed killers or by a solution of carbolic acid to the extent of a wine-glassful or more to a gallon of water. But where there are other plants it is not advisable to apply it so that it can reach them. Covering the Liverwort with a layer of sand to the depth of 1 inch has been found effectual in smothering it; but this is not always convenient in the rock garden, and the method of removing it by hand, and keeping it under by preventing the spores from ripening and spreading, is far the best, although a somewhat tedious task at first, till one has got the upper hand of it.

HOW TO GROW INCURVED CHRYSANTHEMUM MILLE LUCIE FAURE (F. W. H.).—You have failed hitherto probably because you retained the wrong kind of buds. Few incurved sorts develop evenly from a first crown bud selection, and from what you tell us of your experience with this plant, we should think the buds went blind. This fine creamy-white bloom can only be perfected from a second crown bud selection, and to ensure the development of these buds within the proper period special measures have to be taken. For a Gloucestershire garden your plants should be grown on strongly from this time forth, and during the closing days of March the point of the growth of each plant should be pinched out. Keep the plants rather dry for a few days, and in a short time new shoots will be developing in the axils of the leaves. These, to the number of three or four, should be grown on subsequently, and second crown buds—the second series of buds after this manipulation—should be retained. This is the only way to deal with the variety under notice, and there are several other equally good sorts that need the same treatment.

PLANTS ON SHADED BORDER (Egremont).—To make a success of your border, the ground must, in the first place, be thoroughly tilled. It ought to be trenched quite 2 feet deep, and, as it is heavy, you should mix with it such materials as decayed leaves, lime and mortar rubble, and road scrapings, so as to improve its mechanical condition. We understand from your sketch that the fence is behind, that is, on the south side of the hedge, so really it is only the 12 feet high hedge that you have to take into consideration. As the plants are 12 feet high, naturally their roots take up a good deal of space in the border, and therefore impoverish it to some extent. To counteract this, deep digging and manuring the soil are essential. It would be a good plan to dig a trench, say, 1 foot wide and 2 feet deep; the object of this would be to prevent the roots of the hedge entering the border on the other side of the trench. You do not say what plants the hedge consists of. With some, the Yew, for instance, it would be more risky to do this than with others. You might dig the trench 1 foot deep this year, and an additional foot next year, so as not to check the hedge trees too much at once. If you cared to plant a few shrubs at the back of the border, you might try *Rhododendron*, *Philadelphus*, the *Snowberry*, *Forsythia*, the common and white *Brooms*, *Daphne Mezereum*, *Ribes sanguineum*, *Berberis*, *Camellias*, *Witch Hazel* (*Hamamelis*), the deciduous *Honeysuckle* (*Lonicera Standishii* and *L. fragrantissima*), and *Olearia Haastii* (the New Zealand Daisy Plant). Among flowering plants other than shrubs you might plant some of the stronger growing *Roses* *Japanese Anemones* (most useful for a shaded border), *Day Lilies* (*Emorcallis*), *Solomon's Seal*, *Liliums*, *Aquilegias*, *Primroses*, *Forget-Me-Nots*, *Wood Anemones*, *Violas*, *Lily of the Valley*, and *Violets*. All these do well

in the shade if you give them good soil. Of course, your border is very unsatisfactorily placed; but still we think, with good tillage, keeping out the roots of the hedge trees, and planting suitable plants, it may be made very attractive.

CUTTINGS OF OUTDOOR CHRYSANTHEMUMS (T. W. J.). As you have no protection whatever for striking cuttings of Chrysanthemums, the better way will be to treat the plants of your outdoor varieties much the same as ordinary herbaceous plants, that is to say, when danger from hard frosts is over, say, in April (or earlier if you feel safe), lift the plants and divide them, again replanting with as little delay as possible. By this means you may increase your stock to a considerable extent, but not nearly as much as you might do by the help of a frame in which to put cuttings as soon as the young shoots had grown sufficiently to be ready for removal. Without any appliances, the only way to propagate outdoor Chrysanthemums by means of cuttings is to take them in May and dibble them into a sheltered border shaded from the direct rays of the sun. For this purpose the soil should be well dug, and if at all stiff a considerable amount of sand must be incorporated with it, removing at the same time any stones or lumps from the surface. Being made tolerably firm, the cuttings may then be dibbled in their place. They should be put in about 1 inch apart, for as soon as they are well rooted the young plants must be removed to their permanent quarters. When finished give a good watering through the rose of a water-pot, to settle the soil in its place; the cuttings greatly benefit by being frequently sprinkled overhead. A length of 3 inches is very suitable for the cuttings, which, in separating from the parent plant, should be taken as low down as possible, for the portion underneath the ground often has an independent root or two.

* * We are answering the shoal of questions as quickly as possible so as to prevent unnecessary delay. Many are left over until next week.

NEW AND RARE PLANTS.

At a meeting of the Royal Horticultural Society on the 24th ult. the Orchid committee gave awards to the following hybrids:

Cypripedium leucum var. *J. Gurney Fowler*.—This is a remarkable variety of *C. leucum*. The dorsal sepal is as broad as long, and is white except for a green tinge at the base and a line of crimson dots down the centre. The petals, which have curled margins, are green, marked with dull purple; the lip is large and broad, dull purple with green margin. Shown by Messrs. Sander and Sons, St. Albans. First-class certificate.

Calanthe Chapmanii.—It is difficult to correctly describe the colour of this new Calanthe, a hybrid between *C. burfordensis* and *C. Oakwood Ruby*. It is a richly-coloured flower. The prevailing colour is crimson; there is a purple tinge also. It was shown by Mr. Norman C. Cookson, Wylam-on-Tyne. First-class certificate.

Cypripedium G. F. Moore.—*C. mooreanum* and *C. Salteri* are the parents of this hybrid. It is a handsome flower; the petals are marked with brown upon a green ground in the lower half; the upper half is creamy white. The lip is marbled with brown upon a lighter ground. Shown by Mr. G. F. Moore, Chaddwar, Burton-on-the-War, Gloucester. Award of merit.

Cypripedium San-Aetous.—The intercrossing of *C. Actæus* and *C. insignis* Sanders produced this *Cypripedium*. The dorsal sepal is white, except for a green shading at the base, marked with dots of purple. The petals and pouch are pale green, shaded with brown. From Mr. Norman C. Cookson, Wylam-on-Tyne. Award of merit.

Odontoglossum nigrifolium.—This is a beautiful hybrid flower of excellent form, the result of a cross between *O. crispum* and *O. sceptrum*. The petals are white, with a few rose-red blotches; the sepals and the lip are heavily blotched with the same colour; the lip has a yellow ground. From Mr. Norman C. Cookson. Award of merit.

Cypripedium aureum hyacinthum.—A handsome form of *aureum*. The dorsal sepal is large and broad, with the exception of the centre, which is green, striped with brown, it is white. The petals are green and brown, and the pouch dark brown. Shown by Mr. F. M. Ogilvie. Award of merit.

Cypripedium Lawrencei (shrubbery variety).—The dorsal sepal is crimson, marked with almost black lines, and having a white margin. The lip is dull crimson; the petals are the same colour, though tinged with green. From Mr. F. M. Ogilvie, Oxford. Award of merit.

Cattleya Octave Doin.—A beautiful flower, a cross between *C. Mendellii* and *C. aurea*. The petals, which are white, with purple edges, are so arranged as almost to encircle the lip. The base of the lip is rich purple; there are two broad lines of yellow on either side of the throat entrance; the throat is marked with brown lines on a yellow ground. From Messrs. Charlesworth and Co., Heaton, Bradford. Award of merit.

Laelio-Cattleya Charlesworthi magnifica.—A handsome and striking flower with rich orange-red sepals and petals and

purple lip. It is a beautiful form of this valuable hybrid. Shown by Mr. F. Wellesley, Woking. Award of merit.

The floral committee gave an award of merit to each of the following:

Cotoneaster pannosa.—A graceful and elegant winter berry-bearing species. The berries are scarlet in colour, of the size of those of the White Thorn, and are arranged in axillary clusters on the stems. From Messrs. J. Veitch and Sons, Limited, Chelsea.

Erica mediterranea hybrida.—A very beautiful and valuable winter-flowering Heath, a hybrid between *E. mediterranea* and *E. carnea*. The bushy plants are delightfully free flowering, the pink flowers are arranged in spicate racemes. The plants are nearly 1 foot high. From Messrs. R. Veitch and Sons, Exeter.

SOCIETIES.

CROYDON AND DISTRICT GARDENERS' SOCIETY.

PROGRAMME FOR 1905.

FEBRUARY 7.—A delegate from British Gardeners' Association. February 21.—"Some Problems of Fruit Culture," by Mr. R. Lewis Castle (gold medallist of the Fruiterers' Company), Wimbledon. March 7.—"Views from a Croydon Garden" (illustrated), by Mr. M. E. Mills, Coombe House Gardens. March 21.—"Winter Vegetables and Salads," by Mr. Jas. Gibson, Teddington. April 4.—"Herbaceous Plants," by Mr. C. H. Jenkins, Hampton. April 19 (Wednesday).—Exhibition of spring flowers. May 16.—"Spring and Summer Bedding," by Mr. W. J. Marlow, superintendent of Greenwich Park. June 20.—"The Distribution of Plants by Adaptation," by the Rev. Professor Henslow, M.A., V.M.H.

The first meeting of the Croydon and District Horticultural Mutual Improvement Society for this session was held at the Sunflower Temperance Hotel, when Mr. W. A. Cook, Shirley Park Gardens, read a very lucid and practical paper on "Mushrooms." The treatment advocated was principally growing these edible fungi by artificial means, and Mr. Cook remarked, with emphasis, upon the suitability of the bed being the essential constituent for good results, for until this has been properly prepared it is useless to attempt to get a crop. Procure good stable manure from horses fed on corn, taking care the animals are not under physic. It should be allowed to remain heaped up for some time, turning the heap about twice a week. When a temperature of 75° to 80° is kept up the beds may be prepared in a sloping condition, about 4 in 12. These are best made in a covered shed, for then protection is given from severe frost and rains. Cover the bed with finely sifted loam to a depth of 3 inches, break the spawn into pieces about the size of a hen's egg, and insert 9 inches apart. Gently pat the bed down—but not plaster the surface—cover over with loose litter about 2 inches or 3 inches deep. If the bed becomes at all dry moisten with tepid water containing a little salt; but great care should be exercised in applying moisture, otherwise the bed will be spoilt. The Mushrooms should appear in six to eight weeks from time of spawning. An exhibit of Mushrooms was staged by Mr. Cook, and from the hon. secretary (Mr. H. Boshier) came samples of bottled fruit, sterilised under the process recommended by Mr. Leach in a previous lecture, which was much appreciated. On the proposition of the chairman (Mr. M. E. Mills), a unanimous vote of thanks was accorded Mr. Cook for his lecture.

LONDON DAHLIA UNION.

A MEETING of the supporters of the London Dahlia Union took place at the Hotel Windsor on the 24th ult., Mr. John Green, chairman of the union, presiding, there being a good attendance; in addition, a number of letters were read promising support in the present year. The annual report set forth that an exhibition of a very high order of merit was held in the Prince's Hall, Earl's Court, in September last, and it was representative of every type of the Dahlia. There was a keen competition in all the classes, and especially in that for twelve bunches of Cactus Dahlias, which brought a number of stands of unusual quality, the new varieties of 1904 being conspicuously represented. The special prizes given by Mr. F. G. Gledstanes, the object of which was to bring to the fore the varieties best adapted for garden decoration, aroused considerable interest, several exhibits being staged. Mr. Gledstanes has generously promised to continue his special prizes this year and in 1906. Reference was made to the high quality of the examples of Pompon and single Dahlias, while Mr. W. Marshall's special prizes for Pompon Cactus Dahlias brought some pretty varieties. The floral decorations were numerous and the admiration of all; the trade exhibits were varied and very fine. The financial statement showed an income of £69 1s. 9d. and an expenditure of some £67, leaving a small balance to be carried forward. Arrangements are being made with the London Exhibitions, Limited, for the annual exhibition to be held at Earl's Court in September next. Seventeen first-class certificates of merit were given to new varieties of Dahlias, mostly of the Cactus type. Mr. John Green was re-elected chairman of the union, and Mr. R. Dean hon. secretary. The schedule of prizes was passed with a few modifications, and the arrangements of the show left in the hands of the chairman and secretary. Great regret was expressed at the absence of the secretary through illness.

FRIOCKHEIM HORTICULTURAL SOCIETY, N.B.

THE annual general meeting took place on the 21st ult., when the treasurer's financial statement, which showed a small balance in favour of the society, was approved. The following office-bearers were appointed: Honorary president, Captain Guthrie; president, Mr. J. Davidson, Damside House; vice-president, Mr. George Esplin, Leysmill; secretary, Mr. George Johnston; treasurer, Mr. D. Carr; with a large committee.

SOUTHAMPTON ROYAL HORTICULTURAL SOCIETY.

AMONG other things the annual report states that, although the society has only just been able to pay its way during the past year, the council considers the society's financial position satisfactory, in view of the general depression that has prevailed. In the early part of the year Mr. Garton decided to resign the hon. secretaryship of the Southern Counties Carnation Society, and in consequence it was decided to dissolve that society. Feeling that the discontinuance of the Carnation shows would be a very regrettable loss to the town and district, your council was approached with a view to the work being carried on by this society. A joint meeting was held, and the following arrangements agreed upon, viz.: That members of the Carnation Society transferring their subscriptions to the Southampton Royal Horticultural Society, to become members of the latter, entitled to the same privileges as other members, but that their subscriptions should be credited to the Carnation show account. That the Carnation shows should be managed—as regards prizes, judges, and exhibition arrangements—by a special committee, including subscribers to the Carnation show funds, Mr. Garton, jun., generously promising a very liberal annual subscription, provided the Carnation shows were held as separate exhibitions, and styled the Southern Counties Show. A canvas of the members of the late society resulted in nearly 80 per cent. consenting to the foregoing arrangement, many increasing their subscription. The exhibitions of the past season had each a record in the total number of entries, and the quality of the exhibits was generally of the highest order of merit. The summer show will be held this year on July 26, and the autumn show on October 31 and November 1.

NATIONAL CHRYSANTHEMUM SOCIETY.

The following notice is being issued to raisers, importers, and distributors of new varieties:—

The executive committee has decided that on and after January 1, 1905, a department of plant registration shall be instituted by the society. Raisers, importers, and distributors of new varieties (whether members of the society or not) are requested to send to the registrar appointed by the society, on or before December 31 in every year, a list of all new varieties they intend to send out in the ensuing year. Such list to contain name and description of variety, name of raiser and distributor, and section to which the new variety belongs, on forms that will be provided upon application to the registrar. It is requested, if it be possible, to submit any such new varieties previously to the floral committee for classification. The information thus obtained will then be inserted in the annual report and schedule of prizes every year, and thus the society's official catalogue will practically be kept up to date. The registrar at present is Mr. C. Harman Payne, 141, Wellmeadow Road, Catford, S.E.

BRIGHTON AND SUSSEX HORTICULTURAL SOCIETY.
ANNUAL REPORT, 1904.

In submitting the balance sheet for the past year the committee have to report a loss of £56 6s. 11d. on the year's working. This is very much to be deplored, considering the three very fine exhibitions given by the society. The weather, especially during the summer show, was against good attendance, and the receipts suffered accordingly; but it was noticed generally that during the three shows lack of interest was very apparent on the part of the public. On the other hand, the committee desire to thank the president, vice-presidents, and subscribers for their valuable support and interest, without which it will be impossible for the society to carry on the good work of so many years. It is gratifying to note the steady increase in the number of ordinary members, whose interest in the society is its mainstay, and the committee hope these numbers may be still further increased. It will thus be observed that the society depends on further subscriptions and a better attendance on the part of the general public. The thanks of the society are due to Alderman H. Abbey, J.P., for presenting a silver cup to the value of ten guineas, also to H. Young, Esq., for a special prize of five guineas for competition in 1905.

HIGHGATE HORTICULTURAL SOCIETY.

THIS old-established society held its annual meeting on the 26th ult. at the Highgate Literary and Scientific Institution, Highgate, N. The president, Mr. E. H. Smithett, who is an enthusiastic horticulturist, occupied the chair. The meeting augured well for the future well-being of the society. The forty-fifth annual report and statement of accounts were duly read, received, and adopted, and the pleasing announcement that there was a balance on the right side, although small, was also a cheering fact. The chairman, who proposed the adoption of the report, &c., referred to the excellence of the last show, stating that one of the judges, who had adjudicated for them for many years past, expressed the opinion that it was one of the best displays they had had for ten years. He also announced that Lord Mansfield had consented to act as president for the new year, and had also placed his charming grounds at the disposal of the society for its show in 1905. Ken Wood, midway between Highgate and Hampstead, is a very beautiful place. The society is to be congratulated on its good fortune. Officers and committee were re-elected, and a new secretary (Mr. Cawte) was appointed as successor to the late Mr. W. Boyce.

The recent market show of Chrysanthemums.—A meeting of the committee which carried out the show at Essex Hall on December 19 last was held at Carr's Restaurant on the 25th ult., when Mr. R. Dean, the secretary, reported that the receipts from all sources had

amounted to £37 19s. 3d. Of this sum £26 10s. 6d. had been received as subscriptions, medals had been presented to the value of £8 18s. 3d., and the amount of £2 10s. 6d. was taken by the sale of tickets and payments at the doors. On the expenditure side medals awarded and engraving had cost £21 7s. 9d.; show expenses, including hire of tables and vases, bill posting, judges' expenses, &c., amounted to £8 3s. 1d., leaving a balance in hand of £8 8s. 5d. As the committee of the National Chrysanthemum Society had borne the expense of the hire of Essex Hall, printing the schedule of prizes, and circulating the same, representing in all about £7, it was resolved that this sum be paid into the general account of the society, leaving a balance of £1 8s. 5d. to be carried forward. It was resolved that a meeting of the market committee be held within the next month, when any arrangements for the future will be fully considered. In the evening the committee and a large number of supporters of the market show dined together at Carr's Restaurant, under the presidency of Mr. Robert Ballantine, chairman of the committee, the tables being charmingly decorated with Chrysanthemums supplied by Mr. George Prickett. In the course of the evening various suggestions were thrown out, and were referred to the consideration of the committee. A most enjoyable evening was spent. Great satisfaction was expressed at the presence of Mr. R. Dean, the secretary, after his long illness.

Social meeting of Dundee and Broughty Ferry Horticultural Associations.—On the evening of January 20 the members of the Horticultural Associations of Dundee and Broughty Ferry held their annual social meeting in Wood's Rooms, Commercial Street, Dundee. There was a large attendance of members and their friends, and the chair was occupied by ex-Bailie Melville, who was supported on the platform by a number of the local nurserymen and gardeners. The toast of the evening, "The Horticultural Associations of Dundee and Broughty Ferry," was entrusted to Mr. D. Storrie, of Messrs. Storrie and Storrie, who made a happy speech, which was warmly received by the large company. Fitting replies were given by Mr. R. Cairns on behalf of the Dundee Association, and by Mr. J. Slater on behalf of the Broughty Ferry Association. In the course of the evening a number of highly-appreciated songs and recitations were given by several of the members and friends. The social meeting was one of the most enjoyable yet held in connexion with the associations.

Royal Horticultural Society's examinations, 1905.—School teachers.—This society will hold an examination in cottage and allotment gardening on Wednesday, April 5. This examination is intended for, and will be confined to, elementary and technical school teachers. It has been undertaken in view of the increasing demand, especially in country districts, that the school teachers shall be competent to teach the elements of cottage and allotment gardening, and of the absence of any test whatever of such capacity. The general conduct of the examination will be on the same now well-known lines as that of the more general examination, save in obvious points to which they would not apply. Intending candidates are requested to send in their names early in March. A silver-gilt Flora medal will be awarded to the candidate gaining the highest number of marks, and each candidate will receive a certificate of the class in which he has passed. The society's annual examination in the principles and practice of horticulture will be held on Wednesday, April 12. The society is willing to hold an examination wherever a magistrate, clergyman, schoolmaster, or other responsible person accustomed to examinations will consent to supervise one on the society's behalf and in accordance with the rules laid down for its conduct. A copy of the syllabus, covering both examinations, will be sent to any person on receipt of a stamped and directed envelope. Questions set at the Royal Horticultural Society's examinations, 1893—1904, may also be obtained at the society's offices, Vincent Square, Westminster, price 1s. 6d.

NOTES FROM THE MARKETS.**COVENT GARDEN MARKET.****AVERAGE WHOLESALE PRICES.**

		FLOWERS.		s.	d.	s.	d.
Azalea indica alba	per dozen bunches	4	0	to	6	0	
" mollis	"	12	0		18	0	
Bouvardia, white	"	6	0		8	0	
" pink and red	"	5	0		6	0	
Calla aethiopica	blossoms	3	0		5	0	
Camellias	"	2	0		3	0	
Cattleya labiata	"	8	0		12	0	
Carnations	bunches	18	0		30	0	
" special American varieties	blossoms	3	6		6	0	
Cyclamen	bunches	6	0		8	0	
Cypripedium insigne and others	blossoms	2	6		3	6	
Dendrobium nobile	"	2	6		3	6	
Daffodils, yellow trumpet	bunches	6	0		9	0	
" double	"	9	0		12	0	
" princeps	"	7	0		9	0	
Eucharis amazonica	blossoms	3	0		4	0	
Euphorbia leucantha	per bunch	2	0		3	0	
Freesia refracta alba	per dozen bunches	3	6		4	6	
Gardenias	blossoms	2	0		3	0	
Helleborus niger	"	1	6		2	0	
Hyacinths, Roman	bunches	6	0		8	0	
Lilac, English forced	per bunch	3	0		4	0	
" French	"	3	6		4	0	
Lilium auratum	"	2	6		3	0	
" longiflorum	"	4	0		5	0	
" lancifolium album	"	2	0		2	6	
" rubrum	"	2	0		2	6	
" tigrinum	"	2	0		3	0	
Lily of the Valley	per dozen bunches	9	0		18	0	
Lycaste Skinneri	blossoms	5	0		6	0	
Marguerites, white	bunches	3	0		4	0	
" yellow	"	2	6		3	6	
Narcissus, Paper-white	per dozen bunches	3	0		4	0	
" Soleil d'Or	"	3	6		5	0	
" Gloria	"	3	0		4	0	
Odontoglossum crispum	blossoms	2	6		3	0	
Pancratiums	"	4	0		6	0	
Primula sinensis, dbl. white	bunches	5	0		6	0	
Pelargonium (show), white	"	4	0		6	0	
" (zonal), dbl. sct.	"	6	0		9	0	
" salmon	"	6	0		8	0	
Poinsettias	heads	3	0		8	0	
Roses (English)	blossoms	5	0		12	0	
" (French)	"	1	0		2	0	
Tuberose	"	0	6		0	8	
" on stems	per bunch	0	9		1	0	
Tulips	per dozen bunches	6	0		12	0	
Violets, blue	"	2	6		4	0	
" Parma	per bunch	3	6		5	0	

ORNAMENTAL FOLIAGE.

Asparagus plumosus	per bunch	1	0		2	6	
" long trails, each	0	9		1	0		
" Sprengeri	per bunch	0	9		1	6	
Adiantum cuneatum	per dozen bunches	6	0		9	0	
Cycas leaves	each	1	0		1	6	
Myrtle	per dozen bunches	4	0		6	0	
Mediola asparagoides (Smilax)	long trails, per bunch	2	0		3	0	
English Fern (various)	per dozen bunches	3	0				
Berberis Mahonia	"	2	6		3	0	
Ivy leaves (bronze)	"	1	6		2	0	
" long trails	per bunch	1	0		2	0	
" short green	per dozen bunches	1	0		1	6	

FRUIT.

Apples, English dessert	per sieve	4	0		12	0	
" culinary	"	2	0		5	0	
" American	per barrel	10	0		15	0	
" Newtown Pippins	per case	16	0		18	0	
Bananas, Jamaica	per bunch	5	0		10	0	
" Canary Islands	"	8	0		14	0	
Cob Nuts	per dozen lb.	5	0		6	0	
Cranberries	per box	6	0		8	0	
Grapes, Alicante	per dozen lb.	8	0		12	0	
" Gros Colmar	"	10	0		24	0	
Lemons	per case	8	0		14	0	
Oranges, Valencia	"	6	6		10	0	
" Jaffas	"	10	0		12	0	
" Jamaicas	"	5	0		7	0	
Pears	"	10	0		12	0	
Pines, St. Michael's	each	2	6		5	0	

TRADE NOTES.**"GIANT-FLOWERED SWEET PEAS."**

THE list of Bolton's giant-flowered Sweet Peas, published by Mr. Robert Bolton, Sweet Pea specialist, Warton, Carnforth, contains particulars of every variety of note. Intending planters who are not acquainted with the merits of each variety would do well to consult Mr. Bolton's list; the number of sorts of Sweet Peas is now almost legion, and even the expert needs some reliable descriptive list to guide him in his choice. To the amateur, therefore, such a list is quite indispensable. Among the new sorts described in Mr. Bolton's catalogue we might mention Bolton's Pink, a large flower of rich pink colour that has been awarded three certificates of merit; Gladys Deal, a clear light blue; and New Blue Seedling, an improvement on Captain of the Blues. All the standard sorts are also listed.

* * The Yearly Subscription to THE GARDEN is: 1 vol., 6s. 6d.; Foreign, 8s. 6d.

THE GARDEN

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FEBRUARY 11, 1905.

ENGLISH NAMES FOR PLANTS.

A RECENT writer on the subject of flower names deplores the growing habit of calling old favourites by their botanical equivalents, and expresses a hope that "the day will come when we shall free ourselves from the tyranny of hideous names." The question arises, how are we to gain such freedom? It is certainly true that we may nowadays hear an old cottage dame proudly declare, as she points to her fine Snapdragons, "We calls 'em Aunt Trynums now." And as we look into the kindly wrinkled face we think—sadly enough, perhaps—that surely "the old order changeth." Nevertheless, the problem of English names, simple and suitable for our garden plants, is not readily solved. There is little fear that the hallowed names of Marygold and Honesty, Forget-me-not and Heart's-ease, Columbine, and the rest which are woven into the warp and woof of our current English tongue and literature, will ever die out in good earnest.

But what of the multitudes of new plants, unknown to our forefathers, with which we are enriched to-day? There is scarcely a garden, however small, which does not contain some flowering shrub or herbaceous perennial for which no English name can be found, which is not as yet recognised, in fact, as a naturalised British subject. Many attempts have been made during the last thirty years to coin new English names to fit some of these desirable aliens whom we wish to welcome and to domicile, but it has been more or less so far a failure. There is no real objection to such modern names as Foam Flower or Plantain Lily, but they have not taken root in our every-day speech as freely as in our gardens; and, when we have to characterise the different kinds of Plantain Lily, we have no choice but to fall back upon a scientific nomenclature.

Possibly we might have taken more pains to enquire after the local names of imported plants, so that both root and name might have been translated together. Local names are generally significant and sometimes pleasing. Yet other-landers have not always been entirely happy in their choice of flower names. Take, for example, the Rose des Alpes. Have we never, in former days, met

tourists in the Swiss mountains with hands full of the little Rhododendron so named, while they sought in vain for the alpine Rose which they expected to find. Of course, we are all too clever now to make such a mistake, but it may serve as an instance of the uselessness of a vernacular name which applies to two totally distinct plants. In our own language it is still a moot point whether the old name of Gilly-flower belonged formerly to Stock or Carnation. The weight of evidence rests probably with the latter, yet that the name was indiscriminately used may be fairly concluded from the fact that in country districts one may still occasionally hear the old folk speak of the Stock as a Gilly-flower.

In passing we may remark that those who have made a study of the derivation of words tell us that hardly any of our common plant names belong in truth to our native English. Most of them come either from a French or Latin root, and nothing goes to prove more strongly the mixed character of our common speech than these time-worn names which we cherish as purely English. Most of us would be ready to credit the Rose with an English name, yet Rose was borrowed from the Latin. The true English name for the plant lingers in the word "hep" or "hip," which we now use solely for its fruit, though once it meant both plant and flower. It becomes us, therefore, to be modest in speaking of the name-origin even of our national flower.

But, taking our conglomerate tongue as it is, how hard to find a name—short, descriptive, and apt—for a new plant. Anyone who has tried to coin such a name that will prove both altogether fitting and likely to live in our garden vocabulary knows the difficulty. We can scarcely revert to the old doctrine of signatures upon which our ancestors drew so freely; and crisp, representative words are comparatively limited and fail to hit the mark when we come to apply them. Here, then, is a task worthy of greater intellect and fuller knowledge than has of late been bestowed upon it. There are numberless plants in our gardens of which we are obliged to confess that they have no English names, and the botanic Greek or Latin compound falters upon our lips, for, as a rule, we can discern that it is absolutely meaningless, leaving no impress upon the enquirer.

If some clear-headed student of plant roots and name roots alike could be persuaded to take up the subject seriously, and to bend his intelligence to work up good English names for some of the newer plants which find their way from foreign lands year by year into our English gardens, it would not only confer a boon upon all who are interested in plants, but also, by popularising their study, serve in no small degree the cause of science.

Let the point be emphasised that, where good English names exist, they should always in ordinary speech be used in preference to the botanical term, which has its own international, scientific, and even commercial value, but is foreign and out of place in an English garden. And where they do not exist, then let an honest effort supply the want, with one stipulation—that the name be patiently thought out, until it becomes as terse and descriptive as refined English and good common-sense can make it.

AMERICAN TREES IN ENGLAND.

MRS. DANDRIDGE, in writing about the American Birches in your issue of the 28th ult. (page 57), enquires why these trees are not more frequently grouped together among evergreens. She fears that *Betula lutea* is little known in England. These statements raise an interesting point. We have been over the greater part of these islands in search of trees, and the fewness of deciduous American trees is remarkable, i.e., those whose home is in the Eastern United States. Nearly all the deciduous trees of New England, Canada, Virginia, &c., were planted in great quantity in England in the first half of the nineteenth century, before the rage for conifers became acute; yet specimens of most species are not to be found. Here and there is a *Nyssa*, a *Sassafras*, and three species or so of the Atlantic States Oaks are common enough, also *Liquidambar*, Silver Maple, Black Walnut, and Tulip trees. But where are the others? They have evidently died early, and never have grown up to be trees of any size.

There is not, so far as we know, a single specimen of *Quercus alba* or *Platanus occidentalis* 20 feet high in these countries, and American Birches are exceedingly rare. Evidently the want of summer sun to ripen the wood prevents many American trees from growing in England. However, perhaps some of the many species that were planted may survive in places that we have not visited;

and as it is of great interest to know what trees will succeed—by learning first what trees have succeeded—the writer will be much obliged if specimens of the rarer American trees, with particulars of their height and girth, be sent to him. Specimens are necessary, as in many cases people are cherishing as White Oaks the French *Quercus Toza*, and *Platanus acerifolia* as *P. occidentalis*, and so on. Instances of American Birches, Maples, Oaks, &c., would be very welcome to hear of, and in a forthcoming book by Mr. Elwes and myself they would be duly recorded.

Kew.

AUGUSTINE HENRY.

P.S.—Has anyone a large American Beech or a big Butternut?

PRIZES FOR GARDENERS. FEBRUARY.

ANNUAL FLOWERS.

A FIRST PRIZE of *Four Guineas*, a second prize of *Two Guineas*, a third prize of *One Guinea*, and a fourth prize of *Half-a-Guinea* are offered for the best answers to the following set of questions. This competition is open to all under gardeners, whether employed in private or public gardens or in nurseries. Head gardeners where not more than five men are kept may compete. This competition remains open until February 28. Answers must be addressed to the Editor of *THE GARDEN*, 3, Southampton Street, Strand, London, and marked "Competition."

QUESTIONS.

- I.—Name the best twelve varieties of tall, branching Stocks that are both free in growth for garden use, and that give the greatest quantity of long-stemmed blooms for cutting.
- II.—Name the best six annual Asters that are also both free in growth for garden use, and that give the greatest quantity of long-stemmed blooms for cutting.
- III.—Name six Sweet Peas the best for form; that is to say, with the wings outspread and rounded, not hooded and pointed at the top, also giving their colour.
- IV.—Name the best annuals, hardy or half-hardy, for massing, not less than 18 inches in height.
- V.—Which do you consider the most beautiful pure blue-flowered hardy annual (Sweet Peas excluded)?
- VI.—Name the best six hardy annuals to grow for cut flowers (Stocks and Asters excluded).
- VII.—Describe the best uses for hardy and half-hardy climbing annuals.
- VIII.—If you had to plant a shady border with annuals, name the six kinds you would use.
- IX.—If you were restricted to hardy annuals belonging to one natural order, say which order you would select, and give the names of the best species and varieties of hardy annuals contained in it.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

February 14.—Royal Horticultural Society's Annual Meeting, 3 p.m.; Meeting of the Committees, 12 noon; Horticultural Club Annual Meeting, Hotel Windsor, 5 p.m.; Annual Dinner, 6 p.m.

February 28.—Royal Horticultural Society's Meeting; Redhill, Reigate, and District Gardeners' Society's meeting.

A coloured plate of a new hardy berried shrub, *Cotoneaster angustifolia*, will be given with *THE GARDEN* next week.

Photographs of Hollies.—The Editor of *THE GARDEN* will be grateful for photographs showing Hollies planted in beautiful ways or specimens of varieties. The beauty of the Holly as an evergreen shrub has yet to be realised by planters and makers of gardens, and it is hoped to bring its various uses before readers of *THE GARDEN* in April, which is the best month for planting.

Royal Horticultural Society.—Exhibitors are reminded that the shows in the Royal Horticultural Hall will close at 5 p.m. in future for the months of January, February, November, and December, and at 6 p.m. during the rest of the year. This regulation, which is recorded in the new "Arrangements for 1905," just issued, will come into force at the next show—the 14th inst.—when the annual meeting will also be held. The council have just arranged to hold a summer show in the grounds of Chelsea Hospital on July 11, 12, and 13, 1905. The schedule for this show and for the autumn Rose, Fruit, and Vegetable Shows will be issued in about six weeks' time.

The Crystal Palace Rose show has been definitely fixed for Saturday, July 8. Schedules can be obtained from Mr. G. Castleton, Superintendent Gardener, Crystal Palace, S.E.

Gardeners' Royal Benevolent Institution.—We are reminded that the Liverpool Auxiliary of the above intend holding their annual social gathering and smoking concert on Saturday, February 11 (to-day), at the Bear's Paw, Lord Street, Liverpool. The committee have secured artistes that they hope will fully maintain the pleasure hitherto afforded. Mr. R. Le Doux will occupy the chair, when it is hoped he will be well supported, so that a good balance may be handed over to the funds of the institution. Mr. R. G. Waterman, Woolton, Liverpool, is the hon. secretary, and he will be pleased to give any information that may be desired.

Rhododendron Pink Pearl and other varieties.—I noticed in *THE GARDEN* of the 7th ult. (page 5) an illustration of the *Rhododendron Pink Pearl*, growing in the garden of Mr. H. M. Arderne, South Africa. This plant, according to the writer, is the largest in the world, and as he gets his information from a good authority (Mr. John Waterer) I have no reason to doubt the statement. I must say I am rather surprised that there are not more blooms, for I can only count ten in the photograph, which is not extraordinary, as the plant is 6 feet in height and 5 feet in width, but perhaps they are not all depicted in the photograph. I have in the gardens here, of which I am in charge, a plant of *Pink Pearl* 5 feet 6 inches in height and 4 feet 6 inches in width. It carries this year thirty flowering buds. This plant was bought from Messrs. Waterer and Sons in the autumn of 1898, and it has flowered each year since. I must say I am surprised at the quantity of common *Rhododendrons* grown in most gardens when there are such good varieties to be bought at reasonable prices, and which occupy no more space than common ones. I would advise all lovers of good hardy plants to try *Pink*

Pearl, *Cynthia*, *Duchess of Connaught*, *Mrs. W. Agnew*, *Kate Waterer*, *Michael Waterer*, *Frederick Waterer*, *Helen Waterer*, *Joseph Whitworth*, *Baron Schröder*, *Bruce Findley*, *Mme. Carvallo*, *Lady Eleanor Cathcart*, *Mrs. John Clutton*, *Duleep Singh*, *Duchess of Edinburgh*, *Sir Humphrey de Trafford*, *F. B. Heyes*, *J. H. Agnew*, *Mrs. Russell Sturgis*, *Princess Hortense*, *Old Port*, *Everestianum*, *Grand Arab*, *George Hardy*, *Fastuosum fl.-pl.*, *J. Marshall Brooks*, *Sappho*, *Mrs. Holford*, *Doncaster*, *Viscount Powerscourt*, and a host of others.—*CHARLES LINGER, The Gardens, Heyscroft, West Didsbury, Manchester.*

Seed Potatoes for the United States.—We are informed that a large order for seed Potatoes has been received from the United States Government by Mr. A. Findlay, Mairland, Auchtermuchty, Fife. The varieties are, to a large extent, the newer ones recently put upon the market, and include *Eldorado*, *Empress Queen*, *Northern Star*, and several others not generally cultivated in the States. It is understood that these are to be distributed among a number of agriculturists and experimental stations in the United States, for the purpose of being cultivated under the supervision of the Board of Agriculture, with a view to testing their productiveness and general qualities.

A complaint about the Gardeners' Orphan Fund.—The voting paper for the annual election in connexion with the Gardeners' Orphan Fund is to hand, and, in company with many subscribers, I am surprised to find that in no less than nine cases, making eighteen candidates, have two members of one family been nominated. If there is no rule against this, the committee have naturally a perfect right to use their own discretion in the matter, and with confidence in the committee one is quite willing to concede that all are most deserving cases, at the same time many of us think it is not quite the right thing to do. With, as in the Gardeners' Benevolent, an ever-increasing number of applicants it is probably time that a rule should be enforced "that only one member of a family should be deriving benefit from the fund at the same time," or something to that effect. Knowing that our two grand institutions have always been warmly supported in *THE GARDEN*, I should be glad if you will allow this particular matter to be ventilated in your columns that we may get opinions from different quarters. As a subscriber from the beginning and as one who has taken on several occasions a personal interest in the election of candidates, I may say that my opinion is quite in the direction above indicated.—*E. BURRELL.*

British Gardeners' Association Gardeners who wish to become members of the association, but who are in doubt as to any point, are invited to communicate with one or other of the following gardeners, if in or near their district; they are either secretaries of branches of the association, or take an active part in its promotion: A. C. Bartlett, Pencarrow Gardens, near Bodmin; W. G. Begbie, Stanford Hall Gardens, Loughborough; D. Bliss, Superintendent of Parks, Swansea; A. J. G. Chalice, The Nurseries, Plympton; E. C. Creek, Westerfield House Gardens, Ipswich; J. Coutts, Killerton Gardens, Exeter; W. H. Divers, Belvoir Castle Gardens, near Grantham; A. Gaut, 61, Belle Vue Road, Leeds; C. G. Girdham, Avondale, Cecil Road, Hale, Altrincham; W. Hall, Mowbray Park, Sunderland; S. Heaton, 30, Hill View Road, Oxford; J. D. Jones, 6, Acacia Road, Bournville, Birmingham; A. Kime, West-hill Gardens, Yarmouth, Isle of Wight; J. W. Mallinson, Longwathby, E.S.O., Cumberland; J. Milburn, Victoria Park, Bath; H. A. Pettigrew, St. Fagans, Cardiff; C. S. Ritchie, Benellen Towers Gardens, Bournemouth; W. Seaman, Margery Hall Gardens, Reigate; and J. Udale, 2, Ombersley Road, Droitwich.

Annual meeting of the Royal Horticultural Society.—The next show of this society will be held on Tuesday, the 14th inst., when there will doubtless be a large entry, as the one hundred and first annual meeting of the society will be held during the afternoon of the same day, when the report of the council for 1904 will be presented, and the president, vice-president, the treasurer, and the secretary will be elected for the ensuing year, together with three members of council.

New Apple Lord Stradbroke.—From Henham Gardens, Wangford, Suffolk, Mr. T. Simpson writes: "Would you kindly state that the name of the Apple that received an award of merit from the Royal Horticultural Society on January 3, under the name of Fenn's Wonder, has been changed to Lord Stradbroke, and we are sending it out as such."

Apples Cornish Gilliflower and Roundway Magnum Bonum.—I was much interested in the remarks of "A. D." in THE GARDEN of December 3, and of Mr. C. Page on January 7. The quality of the former is grand; but I have found it such a shy bearer either as a standard on the Crab or as a bush or cordon on the Paradise stock, that I have been compelled to reduce the number of trees to make room for more reliable croppers. Cordon trees have given the best results; but they require very careful pruning. It seems to give much better results in the West and in its native county than here in the Midlands. I have found Roundway Magnum Bonum excellent in every way, a free cropper and good grower, and the fruit of fine flavour. No doubt its appearance is against it, as even when well-coloured it is dull. I find it much appreciated here as a culinary Apple; it can be grown very large, much too large for dessert.—F. J., Droitwich.

Hardy Cyclamens.—An illustration of a pretty group of these charming little flowers appeared in THE GARDEN of January 21, page 37. Owing to a confusion of synonyms it is there called *C. repandum*, which name is incorrect, as this is a spring-flowering species, whilst the writer of the notes states that the subject of the illustration is an autumn-flowering plant. The illustration undoubtedly represents a colony of *C. neapolitanum*. The nomenclature of this genus is somewhat confusing, most of the various species having a long list of synonyms, and in some cases the same name has been applied to several species. The name *hederifolium* has been frequently used, and amongst others has been applied to both *C. neapolitanum* and *C. repandum*, hence the confusion which arises from the use of that synonym. A short description of the two species may be of interest. *C. neapolitanum* (*C. hederifolium*) is a native of Italy and Corsica, and flowers in autumn, beginning to bloom in ordinary seasons about the end of August. The beautifully marbled leaves are large and pointed, and appear with or soon after the flowers, and last into late spring. The colour of the flowers varies from crimson to white. *C. repandum* (*C. hederifolium*) is a spring-flowering species, and is not so hardy and free-flowering in the open as the above. It is a native of Southern Europe, plentiful in Central Italy and Corsica. The leaves are toothed and angular, marbled with white above, purplish beneath; produced in April and May with the pale rose-coloured flowers, which are spotted with purple at the base of each petal. A full account of the genus with all synonyms is given in THE GARDEN of March 12, 1898.

Prizes for railway station gardens.—The directors of the Glasgow and South-Western Railway have intimated that it is their intention to increase the sum of money offered as prizes for the best kept station gardens on their line from £50 per annum to £100. There will now be thirty prizes; these are six of £6 each, eight of £4 each, six of £3 each, four of £2 each, and six of £1 each. The directors are gratified with the efforts made by some of the

station-masters on the system, and they hope that this alteration will induce others to enter the competition. The Glasgow and South-Western Railway, although not of great length, serves an important district, now more than ever frequented by tourists, and these appreciate a well-kept station, brightened with flowers arranged in a tasteful manner, while regular travellers often take great interest in the station gardens.

Phyllanthus pulcher (Reidia glaucescens, Miq.).—The genus *Phyllanthus* comprises upwards of 400 species, which are chiefly confined to the tropics, but among this large number few of the species are of any horticultural value. *P. pulcher*, a native of Malay, is, however, an extremely pretty and interesting plant, which forms a small neat bush, and adds variety to a collection of stove or warm greenhouse plants. Its slender branches are furnished with small elliptical pea green leaves about half an inch long, which are arranged



PHYLLANTHUS PULCHER (REIDIA GLAUDESCENS).

(The photograph was taken in the Physic Gardens, Chelsea.)

alternately in a two-ranked manner, so as to give the slender branches very much the appearance of an ordinary pinnate leaf. Upon these slender branches, in the axils of the leaves, the neatly fringed pinkish flowers are produced either singly or in small clusters. They are on slender pedicels an inch or more long, and hang down, giving the plant a very graceful appearance. This and about a dozen other species were formerly placed in the separate genus *Reidia*, the chief difference being that the calyx of the sterile flowers consisted of four instead of five sepals, and the stamens being two instead of three as in *Phyllanthus* proper. The plant is easily propagated from cuttings taken in early spring, inserted in sandy soil and placed over bottom-heat; given the ordinary treatment of stove plants good decorative plants can be grown in a few months. The section of *Phyl-*

lanthus, known as *Xylophylla*, chiefly West Indian shrubs, is of interest, because the plants comprised have flattened leaf-like small branches (*Phylloclades*) upon the margins of which the flowers are produced in the axils of very minute leaves. The ordinary functions of the foliage leaf are carried on by these leaf-like flattened branches.—W. HALES, *Physic Gardens, Chelsea*.

A plea for the birds.—During hard, frosty weather I make a practice of feeding the birds by throwing among the fruit tree plots all specked and half-rotten Apples as they go bad in the fruit room. This has a tendency to tame such very useful birds as starlings, thrushes, and blackbirds, which birds amply repay the gardener later in the season by devouring slugs and other insects that are a great annoyance when the various seedlings are making their appearance above ground. I am a firm believer in keeping these useful birds in and about the garden, as I am perfectly sure they do a great deal more good than harm. Many shoot these birds "because they eat so much fruit;" but we can always preserve with netting what we do not want them to devour. I am pleased to say my employers are very fond of birds. A very old, useless Apple tree in the garden, with two holes in the trunk, in which two pairs of starlings annually nest and rear their young, is a great treasure to them on this account. The only bird I have a little ill-feeling against is our beautiful bullfinch when he nips out the fruit-buds of our various fruit and flowering trees. On the bush fruit I use the patent webber and the black thread webbing, which I find checks their ravages by becoming entangled in their wings, and consequently making them very shy of again approaching the trees.—F. CLIPSTONE, *Dingley, Market Harborough*.

Stokesia cyanea.—Mr. J. Cornhill has recently directed the attention of your readers to the beauty and value of this autumn-flowering plant. There are, at least, two forms of it, one flowering in August, or about this period, the other in November. In my opinion, and I think Mr. Cornhill favours a similar view, the later flowering variety is the more valuable, by reason of the scarcity of its colour quite late in the year. The plant attains some 2½ feet high or so, and in this way is well suited to the conservatory among other plants. Those of your readers who are interested in blue flowers may like to know that one of the best ways of increasing this plant is by root cuttings, and that the time for inserting them is the present. Many plants that are reproduced by their roots in this way show a certain tendency thereto along the line of the larger roots. The *Stokesia*, however, does not do this, its roots are quite smooth and devoid of those excrescences suggestive of growth, and as the leaf tuft is in a conglomerate mass at the summit of the root stock division is less easy. At the same time if a good-sized plant is lifted and the root detached and cut up into lengths of an inch or so, it is easy to get a score or even fifty plants for next autumn from a single plant of to-day. Stand the roots erect around the interior of a well-drained 5-inch pot, the tip of the root just seen at the rim, employing sand or very sandy soil about the roots. Placed in the greenhouse new growth will appear in a few weeks.—E. JENKINS.

The Glastonbury Thorn.—This, the earliest of all the Thorns, is now bearing expanded flowers. It is an early variety of the common Hawthorn, and is known by the name of *Crataegus oxyacantha præcox*. The quaint legend concerning it is that Joseph of Arimathea ended his wanderings at the spot where now the ruins of Glastonbury Abbey stand and stuck his Thorn staff, brought from far distant Palestine, into the ground, where it took root and grew into a tree. This tree was said to open its flowers invariably on Christmas Day, which in old times was January 6. The alteration of Christmas to December 25 was much resented by certain of the populace, and numbers flocked to Glastonbury

towards the end of the year to ascertain which date the Thorn would observe. Tradition relates that December 25 passed with the Thorn's buds still dormant, but that on January 6 the first flower unclosed. This answer by their oracle fully satisfied the wavering minds of numbers, and in consequence many communities refused to recognise December 25 as Christmas Day, but kept it, as of yore, on January 6. It is said that in the reign of Queen Elizabeth the girth of the Glastonbury Thorn equalled that of a man's body. In the south of England this Thorn often flowers as early as November. The foliage is, to a certain extent, retained until the early spring, and trees may sometimes be seen bearing leaves, flowers, and fruit at the same time. It usually produces a second crop of blossoms concurrently with the common Hawthorn. The second flowering is succeeded by fruit, which rarely, if ever, follows the early crop of bloom.—S. W. F.

Calceolaria Burbidgei.—This *Calceolaria*, a hybrid between *C. deflexa* and *C. Pavoni*, which we received two years ago from Dublin in exchange for *C. integrifolia*, has done well in South Devon, and bids fair to be almost as hardy as the latter species. It has spent one winter unprotected in the open, and has not been harmed by the frost we have already experienced this year. A week ago I cut a fine flower-spray nearly 1 foot in length and several inches across, set with numbers of its large, pale yellow blossoms. Its blooming period is here very different to that of *C. integrifolia*, which is at its best in July, whereas *C. Burbidgei* rarely commences to flower before the end of September, and is at its best in October and November. Last year, in November, I saw a large plant trained against a wall in the Terrace Garden at Mount Edgcumbe in full flower.—S. W. F.

The Aloe as a national flower.—We have received from Port Elizabeth, South Africa, a booklet written by Dr. Ensor, about the Aloe, for the purpose of urging the suitability of this as the national flower of South Africa. In the preface Dr. Ensor says: "The selection of the flower, which shall be the emblem flower of South Africa, has for some years been the subject of discussion, and I would venture to express the opinion that it is time the choice was made." With the object of helping to the selection of an indigenous flower which has so many qualities to commend it the author has written his booklet.

The National Potato Society.—The annual report just issued states, among other things, that "the first year's work of the National Potato Society is a record of unexampled success in the history of special societies. Founded in December, 1903, it secured within less than ten months a membership of nearly 2,000, composed of about 300 individual and some 1,500 affiliated members; established upwards of twenty trial stations in various parts of Great Britain; issued gratis a useful pamphlet on Potato disease; held special conferences in London, Lincolnshire, and Edinburgh; paid personal visits, through its secretary, to about thirty farms and experimental stations in England and Scotland; founded a special committee for Potato synonyms; and organised and successfully carried through a gigantic show of Potatoes at the Crystal Palace in October, 1904. The society will keep constantly before it the duty of guarding trade interests. The financial position of the society is sound; it has a small balance to its credit."

Chrysanthemum Tuxedo.—This *Chrysanthemum* (recently alluded to in THE GARDEN as a new variety) supplies another instance of a plant being distributed and grown for many years before its merits are fully recognised. Instead of being new, it is, as *Chrysanthemums* go, quite old, though its raiser and date of introduction I am unable to give. It is, I believe, an American variety, sent over when the new forms from across the Atlantic were eagerly looked for. This *Chrysanthemum* was

first brought to my notice by an article in THE GARDEN for April 15, 1893, and in a few years it was recognised as a market kind, but to-day it occupies, I should say, a higher position than it has ever done before. Its clear, decided, and at the same time fashionable colour, is all in its favour as a market flower, and for late blooming it stands out in its way unrivalled. Other instances exist of plants now well known having been distributed a long time before their merits were fully recognised. *Pelargonium F. V. Raspail* is a good instance of this, as it was sent out by the raiser, M. Lemoine of Nancy, in the spring of 1878, but it was nearly ten years later before it came prominently forward. The bedding variety *Paul Crampell*, which has asserted itself so strongly within the last two years, is also a comparatively old kind.—T.

A winter-flowering Clematis (*Clematis calycina*).—The interesting features about this species are its evergreen leaves and early flowering period. Among other Clematises it is easily recognised in winter, for it is the only hardy species to retain its leaves, and it is rarely between December and February that a plant can be found out of bloom. According to Loudon it was first brought to this country in 1596. In its home in the Balearic Islands it is said to grow to the tops of tall trees, and, in fact, smother them, but about London it is seldom more than 12 feet or so in height. The leaves are deep green and glossy, the flowers pendulous, greenish white, with purple marks on the inside of the sepals, and borne from the leaf-axils. They differ in size to some considerable extent, some being only 1½ inches across, others upwards of 2 inches. Like many other early-flowering shrubs, it looks more at home in some cosy corner or against a wall than it does in the open ground. About London it grows well, but is more at home in counties such as Devon and Cornwall. In some gardens it is known as *C. balearica*.—W. DALLIMORE.

National Sweet Pea Society.—The fifth exhibition of this society will be held in the Royal Horticultural Hall, Vincent Square, Westminster, on July 4. In the annual report just issued we read: "In completing its fourth year the society finds itself in a substantially stronger position in every respect than in any previous season of its comparatively brief life-history. The committee can record increased membership and materially increased subscriptions, and is delighted to be able to describe the last year as one of unqualified success in all directions. With a view to ensuring that the flowers shall be seen by the greatest possible number of people interested in Sweet Peas, it has been decided to hold the 1905 exhibition at the Hall of Horticulture, Vincent Square, on July 4. The financial position of the society is better than it has ever been before."

Aubrietia Winter Gem.—This is a new seedling *Aubrietia* which I raised some years ago. It commences to bloom in the middle of January, and a plant about 1 foot square had on the 14th ult. upwards of sixty small purple flowers on it. It was blooming notwithstanding the fact that this garden faces due north, and on the date already referred to there was a snow-drift at the top of the garden upwards of 5 feet in depth. *Aubrietias* in mild weather send out a few flowers in winter, but this seedling is covered with blossom at present, so I think it promises to be a true hardy midwinter bloomer. I would be glad to hear of any other novelties of this sort, as I am much interested in the subject.—WALTER SMYTH, *Holywood, County Down*.

The Shamrock Pea.—This pretty little Himalayan plant (*Parochetus communis*), of which the English name is Shamrock Pea, is a delightful thing in the garden from October onward. The leaves much resemble those of a Clover or Wood Sorrel, and the pea-shaped flowers, pale blue in colour, are borne in profusion during the late autumn and early winter. In the closing week of November I saw a large

space of rock garden in Cornwall covered with this plant, which was then flowering freely. Should frost occur the expanded flowers are killed, but as soon as genial weather returns a fresh supply is soon produced. Though not absolutely hardy, it is never injured during the winter in the south-west, and is readily increased by division or seed. In light soil in a steep rockery it is seen at its best, as it rambles over the stones and the flowers are brought near to the eye, while it roots everywhere from its creeping stems. It is an old inhabitant of our gardens, having been introduced nearly a hundred years ago.—S. W. F.

New Apple Parentage.—Under this title "A. D." speaks very disparagingly of Peasgood's Nonsuch Apple. He says that for quality it is worthless. I think many will be found to differ from him, for it is very similar to the old favourite Blenheim Orange, but it is a better cropper, and a larger Apple. It has a similar granular flesh, which many people like very much. In my garden I have every Apple of the best quality, and while I admit that Cox's Orange Pippin is our best flavoured variety, I still contend that Peasgood's Nonsuch is a good Apple, and not to be despised; in fact, many people like it very much.—JOHN POPE.

TREES AND SHRUBS.

CRYPTOMERIA ELEGANS.

WHAT a pity this conifer does not make a better show after twelve years' growth than it does. Hundreds have been planted here, and not one can be called a decent specimen after it reaches 10 feet high. The inside portions die off so much as to entirely disfigure the tree. Here the tint of its foliage in the autumn is so pleasing that hundreds are yearly grown for winter effect. Stocky little trees from 2 feet to 4 feet high have a charming winter effect in the beds and borders in a mass. Cuttings strike so readily in a cold frame in September that a stock of serviceable plants are easily obtained, and even when they are 1 foot high they colour charmingly and deserve extended cultivation.

Bishop's Waltham.

E. M.

TREES OF UPRIGHT GROWTH.

TREES of upright growth can be made to play an important part in the garden, for, whether used singly or in groups, their stiff, upright character forms a distinct feature among other trees of freer habit. The Lombardy Poplar is a familiar example of this class of tree. For some positions these stiff, upright trees, are much better fitted than round-headed trees would be, and they are certainly worth planting more largely than is the case at present. For street planting some of the varieties are well adapted, for, as they are naturally slim and of compact habit, they require little or no pruning to keep them within bounds; while many trees that are planted in streets, especially in thoroughfares that are not very wide, have to be cut hard back to keep them within bounds, and they lose all natural beauty.

On looking through a list of trees it is found that there are many sorts which answer to this description, both deciduous and evergreen being included, and of this number attention is drawn below to some of the most noteworthy.

The evergreen section is limited to conifers, and of this section some of the most striking are as follows:

CUPRESSUS.—Many of the kinds in this genus assume a columnar habit when young and lose it as they approach maturity. For the garden the upright growing varieties of *C. lawsoniana* will be found useful. Some of the best are *Alumi*, *erecta*, *erecta viridis*, *e.v. argentea*, *Fraseri*, and *stricta*. *Cupressus thyoides*, "the White Cedar"

of the Eastern United States, forms a perfect column of greenery when young. Of this there are varieties with variegated and glaucous leaves. In the colder parts of the country it would not be advisable to plant this species.

Of the *Retinospora* section of *Cupressus* there is a fastigate variety of *C. obtusa* known as *erecta viridis*, while several other varieties can be kept in a formal shape with a little pruning.

When young *Thuja occidentalis* and *T. gigantea* are of columnar habit, but lose it in later life.

LIBOCEDRUS DECURRENS is one of the most striking of all the evergreens, rising slim and straight to a considerable height, and forming a column of dark green foliage. Among the

Yews we have the "Irish Yew" (*Taxus baccata* var. *fastigiata*) and its golden variety, both of which are excellent. The

JUNIPERS have representatives in *Juniperus communis* var. *fastigiata*, which makes a small, neat column, and young plants of *J. virginiana* and *J. chinensis*. For a position where a dwarf fastigate evergreen is required *Cephalotaxus pedunculata* var. *fastigiata* will be found a suitable plant.

Among deciduous trees we find a fairly wide selection, some useful ones being *Acer* (Maple) *Lobelia*, a tall growing species from Southern Italy; *Acer platanoides* var. *columnare*, *Aesculus Hippocastanum* (Horse Chestnut) var. *pyramidalis*, *Crategus* (Hawthorn) *monogyna* var. *stricta*, an upright habited variety of commanding appearance; *Carpinus Betulus* (Hornbeam) var. *pyramidalis*, *Castanea sativa* (Sweet Chestnut) var. *pyramidalis*, *Fraxinus excelsior* (Ash) var. *stricta*, *Liriodendron tulipifera* (Tulip tree) var. *fastigiata*, *Populus alba* (white Poplar) var. *pyramidalis*, *Populus nigra* (black Poplar) var. *pyramidalis*, *Prunus Padus* (Bird Cherry) var. *stricta*, *Pyrus Ringo* var. *fastigiata* *bifera*, *P. pinnatifida* var. *fastigiata*, *P. Aucuparia* var. *fastigiata*, *Quercus pedunculata* (Oak) var. *columnaris*, *Q. p.* var. *fastigiata*, and forms of fastigiata known as *cucullata*, *excelsa*, *Grangei*, *variegata* and *viridis*, *Robinia Pseudocacia* (False Acacia) var. *fastigiata*, *Taxodium distichum* (Deciduous Cypress) when young, *Tilia* (Lime) *platyphyllos* var. *pyramidalis*, *Ulmus campestris* (Elm) var. *pyramidalis*, *U. c.* var. *sarpiensis*, the "Jersey Elm," *U. glabra* var. *cornubiensis*, the "Cornish Elm," *U. montana* var. *fastigiata*, and *U. m.* var. *aurea*. This selection will be found to contain all the most distinct sorts, though the list could be lengthened to some extent by those who required a full collection.

W. DALLIMORE.

BERBERIS JAPONICA.

THIS is one of the finest of the pinnate-leaved Barberries, and is well worth growing either for its large evergreen leaves or yellow flowers. It is found in both China and Japan, and forms an open clump of stiff, upright branches, 5 feet or 6 feet high, terminated with heads of handsome deep green, leathery leaves, made up of seven or nine leaflets, which are large, rounded at the base, and terminated at the apex with a strong spine, several other spines being found on the margins. The stems when broken through are bright yellow in colour. The flowers are yellow, and borne in large, terminal panicles during January and February, and are followed by dark purple or black fruits. For grouping on the outskirts of a shrubbery it is an excellent plant, but as it is very impatient of root injury, it should be placed in a permanent position when quite young, and not disturbed afterwards. If, however, it is found necessary to transplant an established specimen, care should be taken to secure a good ball of soil about the roots. The best time to do the work is October or April.

W. D.

PRUNING EVERGREEN SHRUBS.

As the winter passes away the necessity for shrub pruning presents itself. How many fine shrubs, both evergreen and deciduous, have been practi-

cally ruined because not pruned and allowed to grow wild, so that individuality and form are absolutely lost! Bad as is the result by which what should be a pleasing shrubbery and garden ornament becomes a thicket, even that may be regarded as less offensive to good taste than is the far too prevalent fashion of clipping all shrubs over with shears, so that every one is made to resemble a balloon, the true character of the individual shrubs being entirely destroyed. It is a practice that cannot be too strongly denounced as a gross violation of good taste. In the correct pruning of shrubs the operator should show some regard to their natural habits and forms, whilst the pruning should be in accordance with growth; it should not less be concerned with the preservation of what is each particular shrub's form or outline. Apart from the many distinctions in leafage, colour, nature of wood, and divergence of bloom, each shrub more or less shows natural form—and, in that respect, variation—that is specially pleasing. No man, however expert he may be with the pruning knife, is fitted to act as a pruner of shrubs until he has learnt the natural growth and contour of each shrub. Then pruning must have special consideration for the blooming season. The pruner who cuts away ruthlessly the long, stout growths of the previous year made by Mock Oranges, for instance, is destroying all prospect of a flower display. These long growths are intended specially to produce a garland of flowers. The pruner cuts them away because they offend his taste for uniformity. So many other beautiful flowering shrubs are in the same case. Their proper pruning season is so soon as their bloom is over, but just then, because it is midsummer, no one thinks of performing it. Yet, were it then done, new strong growths to bloom the next year would soon be produced. In the pruning of evergreens not only should a knife alone be used, but to keep the shrubs in moderate dimensions the pruner should occasionally, as necessity requires, cut hard in, removing branches which will hardly be missed, because other smaller ones will cover up the pruned branches. The chief art in shrub pruning lies in carefully concealing it, simply reducing dimensions, but well retaining natural form and character. Occasional hard pruning, admitting free branch growth for two or three years, is better for shrubs than a yearly peddling with a knife, as that is little better than shearing.

A. D.

THE YULAN (MAGNOLIA CONSPICUA) SEEDING.

I HAVE occasionally seen a seed-pod on Magnolias of the *conspicua* section, but never in any quantity until last year. In the late summer I was asked to visit a garden and report on a Magnolia which appeared to be in bad health. I found a large specimen of *Magnolia conspicua*, 24 feet in height and 25 yards in circumference of



THE NEW SINGLE CHRYSANTHEMUM HONEYSUCKLE.

Note the florets, which are quite Honeysuckle-like in form.)

branches, growing on an evidently artificial mound on a flat lawn. Some of the branches were leafless and dying, and there was general evidence of decrease of vigour. As the owner of the garden had only lately come into possession, he was unable to inform me if the Magnolia had been originally planted on the top of the mound or whether this had been piled up round the stem. I suggested that if the latter had been the case it might account for the ill-health of the tree, and recommended that the soil should be carefully moved in order to ascertain the position of the roots, and, if they were found, to be deeply buried, that the overlying earth should be taken away. Upon this advice being followed, it was found that the roots were but a few inches beneath the surface, and the mound was, therefore, undisturbed. Later on seed-pods commenced to appear, and by November the tree was bearing quite a hundred of these, all that were opened containing fully-formed seeds. This seeding is probably the expiring effort of the tree.

S. W. FITZHERBERT.

NEW PLANTS.

NEW SINGLE CHRYSANTHEMUM HONEYSUCKLE.

FLOWERS of this new single Chrysanthemum have a striking resemblance to the Honeysuckle; in fact, so much so that it is almost a facsimile. The many who admired it during the past season immediately exclaimed, "What an appropriate name," and, strange to say, the odour it carries with it reminds one of the delightfully sweet-

smelling Honeysuckle. It is considered a charming variety, and will be sure to be a favourite with all where cut flowers are used. It is of the purest white, with a decided and effective yellow centre. The flowers last a long time when cut.

STOVE & GREENHOUSE.

WORK IN AN AMATEUR'S GREENHOUSE.

(Continued from page 73.)

SOME of our winter troubles arise from overcrowding. There are so many things in the autumn for which house room must be found, and space, perhaps, is limited. "It is really wiser to grow a few plants well," says some sententious adviser. So it is, as we all agree, but we go on hugging our treasures, and will not let one of them go. Overcrowding, all the same, is a very bad fault. Plants require free circulation of air about them, or another kind of growth not so welcome—mould—spreads at an astonishing rate where it once gets a footing.

Every day throughout the winter there is work to be done in clearing away dead leaves and litter of all kinds.

Greenhouses are of all sorts and sizes, heated and unheated, and situated, moreover, in widely differing aspects, and being so we must each find out for ourselves the capabilities of the one or more which may be at our own disposal. No general directions can exactly meet every case. But the ordinary structure in vogue—whether span-roofed or lean-to—has a heating apparatus which is more or less effective. The temptation, invariably, is to treat it as a hot-house in the winter and to keep the temperature too high, whereas the right principle to go upon is to use as little fire-heat as possible, keeping out frost, of course, but maintaining a fairly even temperature of not more than 45°, with a rise to 50° in sunshine by day, and about 40° by night. This may be considered the maximum for ordinary plants, and a little below will do much less harm than if the thermometer be allowed to run up higher. On many winter days firing will be altogether unnecessary, but during a succession of damp, close days it is often advisable to put on a little fire to dry the air and to keep it moving; but even in foggy weather the lights should be opened if only by a chink, though draught must carefully be avoided. It is not so much damp as stagnant moisture in the air that brings mould and that dire disaster damping off.

Another debatable point at this time is the amount of watering to be done. It is safe to keep most things much dryer in winter than in spring and summer. Plants that are at rest, as many now are, require, as a rule, little or no water, though they must by no means be allowed to get dust-dry. Those that are growing need more or less according to their nature, a point which in each case must be studied. Arums, for example, grow and flower during winter and early spring. They are naturally bog plants, and may stand with advantage in a deep pan of water at all times, the dewdrop running off at the point of the leaf being a sign of good health.

Acacias of all kinds—more of which ought to be found in the amateur's greenhouse—also like a good deal of moisture at the root; but they must have free drainage, and will not stand the bog treatment, therefore they must be watered frequently. A good rule to observe all the year round is to water thoroughly and then wait until a fresh supply is needed. Giving a dribble every day brings the rootlets to the moist surface, while the ball of soil and principal roots remain dry. This is the secret of many a crippled plant. Cacti and other succulent plants require very little watering when they are at rest. Once or twice

during the winter is generally enough, and overhead drip—not an uncommon event in greenhouses—is fatal to them, more especially to the globular Echinocacti. Almost all growing bulbs are thirsty subjects until they are passing out of flower. Tulips particularly and Lilies of the Valley often become "blind" simply from neglect in this matter.

These are, doubtless, elementary points, but the object of these papers is to touch upon small difficulties as they arise in everyday work, and to call attention to seasonable details, as well as to some of the less common plants which are available for the amateur's greenhouse. K. L. D.

(To be continued.)

STROBILANTHES DYERIANUS.

ANY stove plants flowering at the present season are sure of a welcome, and although the above is grown chiefly on account of its handsome foliage, its flowers are very interesting and of a most unusual colour. Cuttings inserted now and placed in the propagating case will quickly root. During the spring and summer the young plants may be grown in the ordinary way for their beautiful foliage, receiving an occasional pinching to keep them shapely. From September they should not be restricted, when they will soon cease growing and form flower-heads. The corollas, which are 1 inch to 1½ inches long, vary in colour from mauve to purple, and have a slight perfume. A. C. BARTLETT.

PLUMBAGO ROSEA.

THIS once popular stove-flowering plant is now rarely met with. Its bright rosy colour, neat appearance, and winter-flowering habit should ensure its popularity. The variety coccinea has larger and brighter flowers, and should also be included. As the plants pass out of flower they should have a short period of rest, giving less water, but it must not be totally withheld, and the plants should be placed in a slightly lower temperature. They should then be shaken out and repotted into convenient sizes, using well-drained pots, and as a compost good fibrous loam with plenty of sand and one-fifth of leaf-soil; pot firmly. If possible the plants should be placed in a propagating case for a few days. As growth advances they may be gradually moved into a cool house for the summer, but a light position in the stove is necessary during the flowering period, and great care must be exercised in giving water. While the plants are growing it should be freely given. Propagation is most easily effected by division at the time of repotting.

A. C. BARTLETT.

THE FLOWER GARDEN.

THE SWEET VIOLET.

MUCH has been written about the Violet in THE GARDEN, but, like the Rose, the interest in the plant is perennial, and a reference to its culture will be welcomed by many of your readers who may have a spare corner in their garden which they would like to devote to the growth of this sweet and universally-loved flower. Were it possible to take a census of the British lovers of flowers as to which they loved the most, the Rose and the Violet would, I think, undoubtedly head the list. In order to have the Violet in flower as long as possible a few plants should be planted in different positions with various aspects. For instance, in order to obtain the earliest flowers in autumn a batch of plants should be planted in a warm position at the foot of a south wall or in some

other sheltered position with this aspect, and to secure a succession of flowers a few should be planted in sheltered places facing east, north, and west. Thus a supply of flowers will be secured from early autumn till late in spring.

Violets must have a pure atmosphere, free from smoke and other impurities. Thus the Violet cannot be successfully grown in the immediate vicinity of London or other large towns. This is much to be regretted, as a plant or two of this sweet flower would be highly welcomed in the crowded little gardens or back yards of our great cities.

SOIL.

The Violet is found growing in its wild state on warm and partially shaded banks. It prefers well drained and warm soil to that which is cold; but in practice I have found the Violet most accommodating in this respect, and it succeeds wonderfully well in a great variety of soils, provided the land is well drained. But to grow it to perfection it must have good cultivation. On poor, gravelly, or sandy soil a liberal addition of well-decayed manure and leaf-soil should be added the previous winter before planting in spring. On heavier or more retentive land the manure may be dispensed with, but add as much of the leaf-soil as is available, especially to the land intended to grow the Neapolitan and all the double-flowered varieties. The best Violets I have ever seen were grown at the Royal Lodge Garden, Windsor Great Park, and they were grown in soil composed of three parts of leaf-mould collected in the park. Not to discourage those readers who may not have these commodities at hand the Violet may be grown with fair success in all ordinary garden soils.

PROPAGATION AND GROWTH OF THE PLANT

The plant is easily propagated by runners or offsets, which the plant throws out much in the same way as the Strawberry plant does. The best time to make a start is in spring after the plant has done flowering. This will be towards the beginning or middle of April, and the best way to carry out the work I have found to be is to dig up the old plants and take the soil entirely away from the roots, and then select from the old plants the strongest of the runners (miniature plants really), those being preferred which have a few roots attached to their base; but it is not absolutely necessary that they should have any roots at all at the time of planting, as roots will be formed immediately they are detached from the parent plant and have a separate existence. The larger and stronger the offsets are the better progress they will make after planting. It is the general practice to plant the young offsets out at once in the border or plot of ground they are intended to occupy during the summer; but a better way, in my opinion, is to plant them thickly in prepared soil in a shady corner by themselves—say, in rows 10 inches apart and 4 inches apart in the row. They can be better looked after in this limited space by way of spraying and watering until they have formed new roots, which they will do in about a month's time, when they can be planted in their summer quarters, and where they will make much faster and better growth than they would have done had they been planted in this position as rootless runners. As mentioned before, the Violet loves partial shade, and therefore a sheltered position facing east should be selected in

which to plant it whilst making its summer growth.

DISTANCES APART TO PLANT.

This will vary considerably, according to the varieties grown. The large single sorts require a much larger space than the double-flowered ones. The large-flowering varieties, such as the Princess of Wales, if planted in good soil, will develop into plants 18 inches across in one season, therefore 3 feet apart is none too much space to give them; but in the ordinary way 2 feet apart is the proper distance between the rows and 15 inches between each plant in the row, but for the double-flowered varieties less space will suffice. These are of a smaller and more compact growth, therefore the rows for these should be 15 inches apart only, and the same distance between plant and plant in the row.

(To be continued.)

THE SNOWDROPS.

(Continued from page 70.)

FORMS that appeared to me distinct and to possess some feature not readily found in a broad planting of the type plant are:

Var. Atkinsii.—A form of the *Imperati* group, flowering early in winter. It is a slender yet tall Snowdrop, with flowers 1 inch long, the petals prettily crimped and marked with a heart-shaped blotch of green. A rare and beautiful Snowdrop.

Var. flore-pleno.—The well-known double Snowdrop.

Var. Imperati.—A strong-growing form, with erect leaves 1 inch broad, flowers above 1 inch long, the petals narrowed at the claw, broadly spoon-shaped at the middle. It is a bolder flower than *G. nivalis*, and altogether a better garden plant. *Atkinsii* and *Melvillei* are variations of this plant, the latter having a heavier and more globular flower.

Var. lutescens has yellow colouring where the common Snowdrop has green.

Var. octobrensis scarcely differs from the common Snowdrop, save in its season of flowering, which is late October or early November. It is variable, and may not flower till December in some seasons.

Var. Rachale is a slender Snowdrop, flowering the same season.

Var. Redoutéi is a slender form allied to caucasicus, with rather thin flowers. This plant, *G. caucasicus*, and *G. plicatus* are often confounded in garden nomenclature, a circumstance mainly due to collectors following different authorities when naming their finds.

Var. poculiformis is an old variety. The inner petals are quite unspotted, and nearly equal to the outer in size. It hardly differs from *G. nivalis* in any other detail.

Var. Scharloki is a curious form, the outer petals of which are tipped with green, and the spathe is very long and divided to the base.

Var. præcox (December) *var. Elvæ* (November—December) differ in their flowering season only.

Numerous colour breaks occur as chance seedlings. These retain their variation for a few years, but revert in time to the type. A change of soil, particularly that from a light soil to clay, will produce many yellow-tinted forms, and this is most marked in the case of the double Snowdrop and in *G. Elwesi*.

G. Olga from Greece I have not grown for comparison with others, but in the notes taken at Kew years ago it is described as "a narrow-petalled *nivalis* without green spots

on the inner segments, the lobes rounded and nearly plain." I then gave it one × where three was the maximum.

G. plicatus (the Crimean Snowdrop) is a very distinct Snowdrop. It has large bulbs like those of the Poet's Narcissus, and long, inflated flowers, with widely expanded petals, exceeding 1½ inches in length, the inner ones very deeply cleft, heavily marked green below the thin white margin. It is very hardy and vigorous, and the last to bloom. It does not thrive so well in pans as the others, and it appears to do better in the eastern half of Britain than the western. The finest colony I have seen of this Crimean Snowdrop is in a Midlothian garden. Some of the flowers were 2 inches long, including the ovary. One would need to grow the bulbs for years to get such good results, although there is less difficulty in increasing the size of the flowers of *G. plicatus* than others, as the bulbs do not make offsets very freely, but attain to a great size individually. One may treat this Snowdrop like a Jonquil or Tenby Daffodil.

CULTIVATION.

It seems superfluous to describe the cultivation of Snowdrops, but the various species have a strong preference for certain soils and situations, and although it is scarcely necessary to give specialised treatment to a few dozen bulbs in a plant border, it will be found to make all the difference between disappointment and success in treating thousands, particularly in the matter of grass planting, for which the Snowdrop seems peculiarly fitted. One cannot fail with the common Snowdrop, for it will grow anywhere if planted early enough, and the grass is not too rank. Its rarer forms I have never grown in grass, as they are not available in sufficient quantity to warrant so prodigal a use. *G. Elwesi* one can naturalise in grass if the soil is good and likely to dry out in late summer. This plant requires thorough ripening, and newly-imported bulbs must be planted early. It appreciates full sunshine in all cases. Whittall goes back in grass, Cassaba and unguiculatus thrive in it. *Caucasicus* requires the treatment of *Elwes's* Snowdrop—it likes a summer's baking. *Cilicicus* thrives under deciduous trees as it makes its leaf growth when the conditions in such places are most favourable, and the drier conditions in summer suit it. *Latifolius* and *Ikarie* thrive in a soft turf in full sunshine, and if the turf is mossy, so that the growth of grasses is arrested, they will appreciate it the more, as their leaves can then make headway without being choked with undergrowth, and as both of them carry foliage late in the season there is less necessity to cut the grass and injure the leaves of the Snowdrops if the moss is aggressive. *Byzantinus* and *plicatus* I have found grow best in the vicinity of old buildings. They evidently appreciate lime in the soil, and these two species should be selected for soils overlying limestone, or those that are harsh and stony. A thorough ripening is good for both. *Ikarie* is the best common Snowdrop for pots; there is no other quite so charming as this, nor so accommodating in cultural matters, and I find the flowers are exceptionally fine if old manure is placed over the drainage upon which the roots could feed.

THE SNOWDROP DISEASE (BOTRYTIS CINEREA).

This is a pest found on many plants, living and dead. It requires summary treatment

when found infesting Snowdrops. The bulbs and the soil surrounding them should be burned forthwith, and any not affected sprayed with one of the many fungicides now on the market, and the soil about them dressed with kainit or Veltha. This latter, a good preparation for gardens, kainit for greater areas. If one grows the weakly varieties, and particularly the yellow forms of *G. nivalis*, for the interest they give, it is recommended that they be planted as far away from any broad planting of other kinds as the limits of the garden will allow.

GEO. B. MALLETT.

THE TREATMENT OF FROSTED PLANTS.

IT has been stated that, "on plants or other subjects unprotected, the action of frost is from the top downwards towards the earth, hence the value of, and safety frequently afforded by, slight coverings that are non-conductors of heat, and, consequently, prevents its loss by radiation. The effects of frost on plant life is not always in proportion to its intensity, or the hardness of the plant, under what may be termed natural conditions. A spell of mild weather frequently places vegetation in a growing and tender state, especially in spring, when a sudden change to a few degrees of frost may cause more destruction than a great deal at another time when vegetation was more dormant. Frost acts most injuriously on anything wet, and is least destructive under the reverse conditions" (Nicholson's "Dictionary of Gardening").

We may, therefore, learn from the foregoing that moisture renders a plant susceptible of cold. It may be presumed most gardeners know this. If the air of the greenhouse be dry the plants within may be submitted to a temperature of 32° without injury, provided the return to a higher temperature be gradual. Frost penetrates in a slow and natural way, and the danger of the greatest injury arises when frost is suddenly displaced by heat, either from sunshine or artificially. Gradual changes from a lower to a higher temperature are scarcely felt; but a plant passed at once from a hot-house to an open border is bound to suffer severely, if not killed outright, hence the importance of hardening off plants in a gradual manner.

There are times when the most careful gardener finds himself overtaken by one of those sudden and sharp falls in temperature that happen in the early hours of the morning. Then the management of frozen plants is a matter of some importance, for though they cannot but be injured by such a visitation as frost, yet it is generally practicable to thaw them without the injury being very material. Syringing is sometimes recommended with tender subjects that have become frozen; but, as has been pointed out by a high authority, it should be remembered that water, which is itself much above the freezing point, will, when applied, cause a sudden change to anything that is considerably lower. A practice with many gardeners is to get the fire burning briskly so as to raise the temperature to 32°, at this juncture to sprinkle the plants freely with cold water, and continue this until they are raised above freezing point; they are then thawed. No sunshine should be allowed to reach them for some time, and sheets of paper may be used as a temporary covering with advantage.

I have known a case of a frame of several lights of *Cinerarias* being seized by frost in consequence of one of those sudden changes above alluded to. The frame was at once thickly covered with mats, and the plants kept perfectly secluded for two days, and at the expiration of that time the plants were found to have suffered only very slightly.

In the case of plants in the open some are found to be much more susceptible to frost than others. The common *Aucuba japonica* appears under 15° or 16° of frost to be killed outright, and yet its recuperative powers are marvellous. There is no doubt that in the case of many plants their most vulnerable point is their roots; the branches may be injured by frost, but if the roots can be preserved from it there will be fresh growths from them.

It has been said that a soil in our climate is rarely frozen to a depth of more than 4 inches, and in extremely hard winters it does not penetrate more than 6 inches in light soils, and 10 inches in those that contain a greater excess of moisture. A mulch of some kind, such as a mixture of half-rotted manure and leaves, cinder ashes, Coconut fibre, or soil heaped up about the roots, becomes a very serviceable protection to them. Shrubs of a choice character can be protected by binding up their branches with straw, Bracken, or some such material; the leaves of *Yuccas* may be gathered up into a kind of cone, and strips of matting tied tightly round them. Newly-planted subjects suffer more than those which are well established in the soil; it happens in the case of a very severe winter that newly-planted Rose stocks in autumn are killed outright, because the frost penetrates so readily to the roots. I remember a case where a quantity of Rose stocks were delivered at a nursery on an evening when sharp frost was setting in. Instead of laying them in by the heels in the usual way, they were dropped into a pond of water, and though the stems were ice bound for a few days scarcely one was lost when they were planted out.

THE GARDEN recently gave an excellent illustration of how the heads of standard Roses can be protected against harm from frost. The idea is capable of wide application, much harm is done to outdoor plants by means of late spring frosts, the sun shining upon them while the frosty rime is on the buds. One of my earliest recollections of the garden is when quite a little chap seeing my father syringing of a morning, before the sun could reach them, the buds and foliage of Tree Pæonies, taking care that the temperature was just rising above freezing point. R. D.

Theale Station Garden.—Mr. A. Treacher, the popular stationmaster, has again been awarded the special prize for the best garden on the Great Western Railway in the Reading district during 1904. Having obtained this distinction before, he was debarred from competing for it in 1903.

WALL GARDENING.

THE BEAUTY OF WALL GARDENING.

MANY are the unsightly and featureless places that might be made beautiful by wall gardening, and more quickly than in any other way; for the wall-plants having their roots always cool seem to grow away quickly at once, and yet to be longer lived than their own brother plants in the more level garden. Indeed, wall gardening is not only extremely interesting and soon rewarding, but it seems to quicken the inventive faculty; for if one has once tasted its pleasures and mastered some of the simpler ways of adapting it for use, others are sure to present themselves, and a whole new region of discursive delights

for, armed with a hammer and a bricklayer's cold chisel, he knocks out joints and corners of bricks (when a builder is not looking on) exactly where he wishes to have his ranges of plants. A well-built wall, seasoned and solidified by some years' standing, will bear a good deal of such knocking about. In chiselling out the holes the only thing that had better be avoided is making much of a cavity just under an upright joint; nor is it ever needful, for even if one wishes to have a longish range of any one plant the plants will close up, though planted in the first place a little way apart, while there is nothing against widening any upright joint or making it gape funnelwise either upward or down.

From March to May, or just after they ripen in the autumn, seeds are put in mixed with a little loamy earth, and if the cleft or opening is an upright one, unwilling to retain the mixture, a little stone is wedged in at the bottom or even cemented in. For a plant of rather large growth, like Valerian (*Centranthus*), a whole coping brick can be knocked off the top, and probably quite a nice rooting place be made with the downward digging chisel, to be filled up with suitable soil.

By some such means, and always thinking and trying and combining ideas, the plainest wall can in a couple of years be so pleasantly transformed that it is turned into a thing of flowery beauty. There is no wall with exposure so hot or so cold that

has not a plant waiting for just the conditions that it has to offer, and there will be no well-directed attempt to convert mural ugliness into beauty whose result will not be an encouragement to go on and do still better.

NOTES ON HARDY PLANTS.

FONTIN'S LILY OF THE VALLEY.

WE have referred on a previous occasion to this beautiful variety of the flower of the woodland (*Convallaria majalis*). It is unnecessary to describe the variety at length, as the illustration shows its distinctness and beauty. The "bells," as the



ANTIRRHINUMS, CAMPANULAS, AND OTHER FLOWERS IN A DRY WALL.

offers itself for the mental exploration of the horticulturally inventive. One after another, pleasant schemes come to mind, soon to be fashioned, with careful design and such manual skill as may have been acquired, into such simple things of beauty and delight as this first flower-walled and then Vine-shaded pleasant pathway. Besides the wall gardening that may be designed and reared, there is also that which is waiting to be done in walls that are already in being. Sometimes there is an old wall from whose joints the surface mortar has crumbled and fallen.

But so good a chance is not for every garden, for often the wall that one would wish to make the home of many a lovely plant is of the plainest brick or stone, and the mortar joints are fairly sound. Still the ardent wall gardener is not to be daunted,



IRIS DANFORDIÆ.

individual flowers are popularly called, are large, very open, pure white, and accompanied by broad, rich green foliage, whilst the flowers are as fragrant as any other form of the Lily of the Valley. We have now several distinct varieties of the Lily of the Valley—Berlin, Dutch, Victoria, and last, but not least important, Fontin's, which, though a somewhat recent acquisition, will probably be as largely grown as any in the future.

IRIS DANFORDIÆ.

THIS is one of the most beautiful of all the early Irises; the bright yellow flowers with their quaint green markings at the base of the falls present a most distinct appearance. When established on the rockery with *Iris bakeriana*, *Histrio*, *persica*, *reticulata*, &c., and those of a similar nature, it forms a perfect picture in early spring. This species is quite hardy, and is a native of Asia Minor. Though introduced, however, some ten or twelve years ago, it is rarely seen, but of late it has become more plentiful and easily procured; it does best in a light, well-drained sunny position. It was first shown by Mr. R. Wallace of Colchester before the Royal Horticultural Society in 1891, when it received a first-class certificate. These early bulbous Irises are very easily grown in pots for conservatory decoration. The bulbs should be potted in early autumn in light rich soil, plunged in a cold frame, and introduced into a cool greenhouse early in the year. They soon come into flower, and do not want much fire-heat. After flowering replunge or plant them out if the weather is not too severe.

THE WHITE LIGURIAN HAIR-BELL (*CAMPANULA ISOPHYLLA ALBA*).

Of all the great Campanula family grown in pots none give more beautiful effects than this white-

flowered variety. As a trailing plant in a pot or window-box, when in full bloom, it has probably no equal, and, although seldom seen in true specimen form, yet can it be made to produce plants of quite remarkable dimensions. In the South Park district of Reigate there is an amateur grower with a couple or so of small greenhouses, and who produces annually the finest specimens I have ever seen. Under his method of culture they are usually at their best early in August. He has locally exhibited in broad pots plants 2 feet in depth and 20 inches broad, and literally smothered with flowers. But these exhibited the plant's natural habit of growth, and such as is ordinarily seen. His finest examples, however, are in pyramid form and in 10-inch pots. Being grown in good loam, well-decayed hot-bed manure, leaf-soil, and sand, strong growths break up from the roots. These are, as it were, caged in a funnel 6 inches over of stout mesh wire, that, placed over the plants

and kept erect by small stakes, stand out of the pots 3 feet in height. In the greenhouse, and with only sun warmth, growth reaches the top of the funnel, the grower keeping the points of the shoots inside. When the top is reached side growth begins, and in a few weeks the wire funnel is almost hidden by the shoots, whilst growth is still continued on the top. I saw specimens of this character at the end of July last that were broad pyramids 4 feet in height, the pots being well draped, and the shoots covered with flowers. As such unusual specimens were of purely amateur production it is evident that some of that great section of gardeners can do work not always open to the professional. Other amateurs may wish to do likewise.

A. D.

IPOMÆA RUBRO- CÆRULEA.

FOR those readers who may be induced by the illustration, on page 40, of this lovely climber in flower in the open in South Devon to embark upon its culture I add a few details of the method adopted to induce vigorous growth. When the plants were about 2 feet in height and set with their first flower-buds the soil close to the wall was taken out to a depth of 8 inches and a width of 1 foot; this was then filled in with a compost one-half well-rotted

manure and one-half leaf-mould and fibrous loam. Sufficient room was left to receive the balls of earth when the pots were turned out, and this operation was conducted very carefully so that the balls should not be broken. The soil was then pressed lightly around the balls, and a good watering given. Every evening, if rain had not fallen during the day, the plants were copiously syringed, and they responded so readily to their treatment that several attained a height of over 10 feet, and produced a fresh crop of blossoms daily for a period of over three months.

S. W. FITZHERBERT.

[There is no reason why those situated in less favoured districts than South Devon should not attempt the culture of this lovely climbing plant. It must, of course, be planted against a south wall so that it may have as much warmth and sunshine as possible.—ED.]



FONTIN'S LILY OF THE VALLEY.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

TRAINING WALL TREES (STONE FRUITS).—The number of walled gardens has much increased of late years, but in many the trees are very carelessly trained, especially in the villa garden, where the gardener has had no regular training. The best shape for stone fruits is the fan, or some modification of it, and anyone with a trained eye ought to be able to lay the branches in at equal distances apart, leaving the centre of the trees slightly open to ensure the proper distribution of the sap. Under the usual haphazard system of training the branches rush up to the top of the wall, and the bottom is left bare.

Horizontal Training.—As a rule, where the wall trees are well managed other departments

of the garden are satisfactory, and in dealing with young trees, both fan and horizontal, the knife must be used to get a foundation. Afterwards only the unripe points will be removed, so far, at least as regards furnishing the wall. There is nothing gained by overcrowding the branches. As the tree gets older crowded branches mean small foliage, weak buds, and a paucity of blossoms, which set badly. In the case of stone fruits it is well to lay in a young shoot if there is room, but do not crowd. Give the leaves fair play. As most people know, in this system of training the main stem of the tree ascends verti-

cally, with branches starting away at equal distances apart on each side, and, in order that the bottom of the wall may be well covered, the main stem is headed back annually to the point where the next pair of branches is required. It takes some time to furnish a wall in this way, but when well done it is as permanent as anything can be in a garden. The horizontal is generally used for Pears and Apples only. I have seen Peaches and Plums trained in this way, but if a branch dies there is a difficulty in filling he place.

Palmette-Verrier Training.—This is a combination of the horizontal and vertical, and fills the wall more speedily than the horizontal. The first pair of branches are trained horizontally for 3 feet; the points are then trained vertically. The second pair of branches are taken out 2 feet, and then receive their vertical inclination. The third pair only have 1 foot to go before moving upwards vertically. This is all very simple, as

the branches all move in straight lines, and the wall is soon covered. The trees begin to bear quickly, as the mode of training tends to equalise the flow of sap.

Cordon Fruit Trees.—This system of training is better adapted for Pears and Apples than stone fruits, as there is rather more knifework involved than is good for the latter, though there is no necessity for confining the trees to one or even two branches. In several instances I have seen Pear trees trained as four-branched cordons. Then, of course, it approaches the Palmette style of training, which has already been referred to. For covering walls quickly with Pears and Apples two-branched cordons trained obliquely are very suitable, and cover the wall speedily, giving beauty where otherwise ugliness might present itself.



ONE OF THE MOST BEAUTIFUL OF THE CLEMATISES (C. MONTANA).

Early Tomatoes.—For culture in pots, Comet, Up-to-Date, and Early Ruby are good. For later planting in borders or wide troughs Freedom and Lawrenson's No. 3 are robust growers and very heavy croppers. For weight of crops I have seen nothing equal to the last named; though bright in colour it is a little uneven in shape, and therefore not quite the sort for exhibition.

Spring Propagation of Bedding Plants.—Soft young cuttings strike best, therefore the plants from which cuttings are taken should be what the gardener terms warmed up to prepare a lot of soft young shoots—Fuchsias, Heliotropes, Verbena Miss Willmott, and others, though Verbenas, Petunias, and Begonias may be easily raised in quantity now from seed sown in sandy loam in heat. Young shoots of bedding Geraniums will strike freely either in pots or shallow boxes over a hot surface, such as a flue or hot-water pipes. The soil should be made firm before inserting the cuttings.

Hardy Edging Plants for Flower-beds.—Euonymus radicans variegatus when well established and regularly trimmed makes a very neat edging to a flower-bed, or it might be used instead of Box, though if the plants had to be purchased it would be rather expensive. But it is easily propagated from cuttings. The small-leaved Ivy cænwoodiana pegged down at first would do for a green-leaved edging, and there is a neat dark-leaved Ivy named purpurea which would be equally good as a permanent edging.

Outside Window Decoration.—If shrubs must be used for window decoration, the Euonymus family are the most effective. The little golden Retinosporas soon lose tone amid the smoke, and then look wretched. Their only recommendation is cheapness, otherwise Wallflowers, Violas,

Forget-me-nots, Daisies, Snowdrops, Crocuses, Tulips, and Narcissi would be much more cheerful, especially if a few trailing Ivies and Periwinkles were planted along the front. A pretty box may be filled cheaply with yellow Wallflowers, with Forget-me-nots along the front.

Potatoes for Planting.—The value of selection in all cultivated plants—Potatoes not excepted—is very great. If, when digging Potatoes, sets are saved from the most prolific roots, we may hope to obtain a much heavier crop than is possible when no selection is made, but the seeds saved indiscriminately after the

whole crop has been lifted. The question of Potato propagation has been much discussed in the gardening Press, and new methods have been advocated, but the wise man will, I think, continue to select his sets in a rational manner, and in the case of early kinds choose tubers of medium size and plant them whole.

E. H.

CLEMATIS MONTANA.

PERHAPS no hardy climbing plant gives more satisfaction in the garden than this beautiful early summer-flowering Clematis. It grows with a vigour and flowers with a profusion that are surprising; it will cover cottage walls, draping them with trails of flowers and greenery, or it will make beauty spots of old arbours, poles, pillars, and pergolas; in fact, it may be planted with advantage in almost any position in the garden where climbers are wanted. This Clematis needs little pruning; it is only necessary to thin out the growths when they become crowded.

GARDENING OF THE WEEK.

FLOWER GARDEN.

GARDEN ROSES are best when allowed to ramble at will, so that the outskirts of lawns or semi-wild positions are the most suitable for them, and if undulating ground is available so much the better; the more rugged the ground the more effective the display. What can compare in elegance and beauty, say, with the single Carmine Pillar Rose, a group of Ayrshires on a steep declivity and clambering up the branches of a neighbouring tree, some of the Noisettes on a mound, Ramblers here and there in bold masses and on an occasional tripod—suggestive of fountains of bloom—Rugosas beyond as a cover, and Sweet Briars in irregular clumps, while the depressions can be utilised for wickianaes, Hybrid Teas, Chinas, York and Lancaster, and so on? True, the blooming season of a few is of short duration, but they form a beautiful feature, while most flower freely over a long season. Undoubtedly they are worthy of extensive cultivation whether planted in combination or in separate groups of one class. Plant with no niggardly hand, always bearing in mind that a stray spray of bloom here and there is not effective. Plant also in well enriched soil, aiming to produce plenty of strong flowering growths.

GENERAL REMARKS.—Every preparation must be made without delay for seed-sowing in heat. Get under cover boxes, pans, pots, and crocks all perfectly clean and dry; some wood moss or partly decomposed leaves for spreading over crocks and drainage. Soil—according to probable requirements—put through a coarse sieve. A good general compost for seeds is two parts rather sandy loam to one part of well-rooted leaf-mould. We save the soil the Chrysanthemums were grown in for this purpose, lightened somewhat with leaf-mould, and find it excellent. For choicest seeds and those usually slow in germinating special composts should be provided. Submit it to a thorough baking to destroy worms and eggs and seeds of weeds. Having drained boxes, pans, and pots, and placed a layer of moss or other rough material over the crocks, fill with soil loosely level with the rims, give a smart tap and shake, and press the surface down evenly with a brick in the case of boxes and square pans, and with a smooth round board or the bottom of a suitable sized pot for round pans and pots. Give all a thorough soaking of water from a fine rose can, stand to drain before placing them upon each other in a convenient part of the potting shed ready for sowing whenever wanted. Most seeds require a slight covering of fine soil, but very minute ones, Begonias for instance, are better if not covered with either soil or sand.

The Gardens, Tan-y-bwlch, N. Wales. J. ROBERTS.

INDOOR GARDEN.

GREENHOUSE TREES AND SHRUBS.—Without the help of these for the decoration of the greenhouse during the opening months of the year there would be a somewhat dull period. In a house with only sufficient heat to keep out the frost they can be had in flower much earlier than outside. Many can be grown in pots year after year, while others are best if planted out for a year or two after forcing. The cooler they are grown the longer generally will they last without planting out. A very long list of names of suitable plants could be written. It will be sufficient here to mention a few of the choicest. Among *Prunus P. japonica fl. albo pl.* is one of the earliest—*P. cerasifera var. atropurpurea*, perhaps better known as *P. pissardi*. This is worth growing for the foliage alone. *P. persica var. magnifica*, *P. triloba*, *P. cerasus Rhexii fl.-pl.*, and *P. pseudo-cerasus James H. Veitch*. Three good *Pyrus* are *P. floribunda* and *var. atrosanguinea* and *P. spectabilis*. *Rhododendrons*, of which the earliest to flower are *R. præcox* and *R. nobleanum*. These are often injured by spring frosts outside. *Magnolias* are useful for cutting as well as greenhouse decoration—*M. conspicua*, *M. soulangeana*, and *M. stellata (halleana)*. *Wistaria chinensis* and *var. alba* are general favourites. *Forsythias* naturally bloom early, thus requiring little heat to get them into flower. *Spirea arguta*, *S. Van Houttei*, *Deutzia gracilis*, and *Rhododendron sinense (Azalea mollis)* are all well-known forcing plants. As useful foliage plants the varied colourings and forms of the young growths of *Acer* add beauty to the house.

FUCHSIAS.—Cuttings rooted in autumn will now be ready for 5-inch or 6-inch pots. Use a compost of three parts fibrous loam and one of leaf-soil and well-decayed manure, adding a little sharp sand. Keep the plants near the glass in a warm house. Introduce old plants into heat. When breaking into leaf the younger plants can be shaken out and repotted. Large specimens will not require potting every year, top-dressing being sufficient. Frequent syringing will be necessary, especially on bright days.

BOUVARDIAS AND LANTANAS.—About this date is a suitable time to cut back these plants and start them into growth. I prefer knocking out and repotting before starting into a size or two smaller pot than they flowered in last year, although it does not make much difference whether potting is done before or after starting.

HYDRANGEAS.—A few of the hortensis varieties can now be placed in a temperature of about 50° to 55°. If properly pruned after flowering last year none will be necessary now. Pot on the cuttings rooted last autumn into 5-inch pots.

AURICULAS.—The present is a convenient time for overhauling these plants. See that the drainage is in good order. Remove a little of the surface soil and top-dress, using a compost of fibrous loam and well-decayed manure. Give a good watering and place near the glass in a well-ventilated house. Offsets may be severed from the parent plants.

Royal Botanic Gardens, Kew.

A. OSBORN.

ORCHIDS.

AERIDES.—Among epiphytal Orchids that flower during the summer months there are few genera, when well cultivated, more beautiful than the *Aerides*. The majority of these plants require the temperature of the East Indian house, and among them the following may be mentioned: *A. affine*, *A. houlettianum*, *A. suavisimum*, *A. odoratum*, *A. Fieldingii*, *A. savageanum*, *A. Larpentia*, *A. Lobbii*, *A. quinquevulnerum*, *A. falcatum*, *A. maculosum*, *A. m. Schröderi*, *A. Lawrencei*, and its yellow-tinted variety, *A. L. sanderianum*. A few species, as *A. crispum*, *A. Warnerii*, *A. crassifolium*, and *A. lindleyanum* thrive better if treated to a little less heat than the others. Unless a number of houses are at command, it is best to keep them in the warm house, placing them in the coolest position. The only two cool-growing kinds that I am acquainted with are *A. japonicum* and *A. vandarum*. Both thrive well in the Odontoglossum house. As these plants will soon begin to send out fresh aerial roots, they should receive immediate attention as to cleaning, &c., especially if there is any scale upon them. From the present time to the end of the month is a suitable season for examining the condition of the plants as regards the needs of repotting, &c. The young roots when they commence to grow are easily injured, turning black at the tips on the least bruise. Like many other Orchids, these *Aerides* should not be disturbed oftener than is necessary. Some of the plants are very apt during winter to lose some of their lower leaves often during foggy weather and during severe frosts. Only such plants and those which have insufficient pot room should be repotted. The ordinary flower-pot is preferable for these aerial-rooting Orchids, the plants being more easily managed and the roots less disturbed than when wooden baskets are used. When removing the plants first pick out all the old decayed moss and crocks, and, if any roots adhere to the sides of the pot, carefully loosen them with a thin-bladed knife. Generally so much of the stem should be removed that when the plant is placed in the new pot the lower leaves will be on a level with the rim. Place the plant in the centre of the pot, and stake sufficiently to hold it in an upright position. Put a few large crocks at the bottom; then replace as many of the lower roots as possible. Avoid cracking or breaking them, and work in among them clean picked sphagnum moss and crocks, about one-half of each. Fill to within half an inch of the rim, and finish off with living sphagnum. Any of the large fleshy roots that are long enough may be pegged down on the surface, and in time these will root into the moss. Plants that do not require repotting may have the old material carefully picked out and replaced with clean crocks and fresh living sphagnum. After repotting the plants require no more water for a time than is necessary to keep the sphagnum growing. These East Indian Orchids when growing like heat, especially plenty of sun-heat, but they must have air and moisture too. It is advisable to have the blinds and shading material put upon the house, so that the plants may be shaded during the hottest part of the day. If the plants are not strong or well rooted, it is advisable to pinch off any flower-spikes which appear and give the plants generous treatment throughout the growing season.

Burford Gardens, Dorset.

W. H. WHITE.

FRUIT GARDEN.

EARLY MUSCAT GRAPES.—If these are confined to inside borders alone the latter must be made moist before the bunches come into flower, so that they will require no water till the berries are swelling. At this stage they may be given a thorough watering with liquid manure, at the same temperature as the house. Great care must be exercised during flowering in keeping the temperature of the house as equable as the outside conditions will permit. A night temperature of 65° or 70°, according to the weather, will be suitable. The thermometer may rise 10° or 15° higher during the day, but guard against sudden changes, as this is fatal to a good "set." The bunches must be fertilised at midday by passing a rabbit's tail carefully over them. Encourage a moderately dry atmosphere, but do not let the surface of the borders become dry. The tying down of the shoots should be deferred, if possible, till the bunches have passed out of flower.

QUEEN PINEAPPLES.—Preparation should be made for the potting of the suckers which were rooted last summer. The compost should consist of loam of a rich friable nature, with the fine particles shaken out. Add 4-inch bones at the rate of an 8-inch potful to a barrowload of soil, with about two-thirds of that quantity of soot. If the soil is at all retentive charcoal broken up to a suitable size should be added. The compost should be thoroughly warmed before potting begins; 10-inch or 12-inch size pots, according to the strength of the plant, will be suitable. See that the pots are well drained, and the potting should be done firmly. A hot-bed with a temperature of 85° or 90° must be ready to receive the plants, and this should be elevated so that the plants get the full benefit of light. Now that the days are lengthening and the sun is gaining power, attention must be given to plants that require repotting, so that they may have full advantage of the coming season of growth. In regard to potting, the advice given above for the Queen suckers will be applicable here. The house should be thoroughly cleansed, and a

hot-bed as recommended must be made. The plants will require no water till the roots are entering the new soil. The syringe must, however, be freely used amongst the plants.

TOMATOES.—If the winter-fruiting plants are clean and healthy they may yet be encouraged to give a supply of fruit for some time to come. A top-dressing of some rich material and occasional waterings with liquid manure will give them renewed vigour. Side growth may be encouraged by cutting away the leaves from the main stem. Fertilise the flowers at midday, and create a constant circulation of air. Plants which were raised last autumn are now ready for the final potting into 10-inch pots. The Tomato enjoys a rich rooting medium when confined to pot culture. A suitable compost consists of three parts loam, one part horse manure from which rank gases have been allowed to escape by its being frequently turned, and a liberal sprinkling of old mortar rubble. Leave sufficient room when potting for a top-dressing when a good set of fruit is secured.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

FRENCH BEANS.—The wheel of time has once again brought round the season when winter vegetables of the commoner kind, to most of us, become insipid, and our palates crave for something of a more delicate and appetising nature. How these delicacies are to be obtained becomes to the gardener a matter for earnest consideration. To meet this requirement I know of nothing equal to the climbing French Beans; these I have grown for a number of years, and found them in every way superior to the ordinary dwarf kinds. They are more prolific, and delicious in flavour. In a forcing house, on a border and trellis 25 feet long, an abundant and constant supply can be maintained for six weeks at the very least. The method of growing them is as follows: Supposing the forcing house to be provided with bottom-heat, from 15 inches to 18 inches of prepared hot-bed material placed in the bed where the Beans are to be grown will make an excellent rooting medium. Cover the surface of the hot-bed with soil an inch deep, except where the Beans are to be sown, there the soil must be 4 inches deep, and in the form of a ridge near the trellis; upon this ridge sow the Beans 6 inches apart and 1 inch deep. For training, strings must be fixed to the top and bottom wires, so that they will be parallel with the rafters of the house. When the Beans come through the soil small twigs may be used to give them support until they reach the strings, to which they will cling without further aid; in a day temperature of 70° to 75° they will make rapid progress. Daily syringing must not be neglected, and when the Bean-pods have formed copious supplies of water will be required. Sutton's Epicure is my favourite variety for this purpose. Should

DWARF FRENCH BEANS be preferred a sowing of Osborne's Forcing may also be made in clean 9-inch pots provided with ample drainage. Place a handful of partly decomposed leaves over the draining crocks. Make the pots three parts full of a light compost, equal parts of loam and leaf-soil, and sow from four to six seeds in each pot.

HORSE-RADISH.—The home of the Horse-radish is in the damp meadows of middle and south Europe. In Britain it is cultivated for the sake of its roots, the uses of which are well known. It delights in a moist soil, rich and deep. When a plantation is to be made a corner of the garden should be selected where it will not encroach beyond the space originally intended for it. A third of this allotment ought to be deeply dug and well manured every year to keep up a supply of thick and tender roots. It is propagated by sets provided by cutting the tops or crowns of the roots 2 inches long; these sets are laid in the bottom of a drill 12 inches deep and 1 foot apart every way; while covering the sets tread the soil as little as possible.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

THE FRUIT GARDEN.

PRUNING PEACH TREES.

ONCE the method of pruning the Peach tree is properly understood, this work, important though it is, presents little difficulty. The chief thing to bear in mind is that the flowers, and therefore the fruits, are produced on the previous year's shoots. The grower, therefore, should endeavour to have as many of these as possible in the tree. As it is of equal importance that the shoots must not be crowded, it will be seen that the only thing to do, so as to fill a limited space with the proper kind of growth, is to cut out the unsuitable ones. Generally speaking, when a Peach shoot has produced fruit it is useless and may be cut out, and one or more must be encouraged to take its place. The lowest



SHOOTS IN FLOWER OF PEACH TREE UNDER GLASS, SHOWING HOW FLOWERS ARE PRODUCED UPON SHOOTS OF THE PREVIOUS YEAR'S GROWTH.

(Note the bottom shoot; the past year's growth is full of blossoms, some of which will produce fruits; the point where the shoot that produced fruit last year was cut away can be clearly seen.)

shoot in the accompanying illustration shows well how Peach trees are pruned. Suppose this shoot to have grown last year, 1904, and that it is in flower this year, 1905; it can clearly be seen where the shoot that bore fruit in 1904 was cut out to make room for the new one that is to fruit this year, 1905. Similarly, when this year's fruit is gathered, the shoot under notice will be cut away, and one of the shoots at its base (now quite small, yet plainly visible) trained in to take its place. Of course, it is not necessary to cut out every shoot when it has borne fruit; there may be room enough for it and a new one too. If, however, there is room only for one, the old one must be removed and the new one retained. Opinions differ as to when the pruning should be done. Some advocate the removal of the shoots as soon as the fruit is gathered, while others wait until the spring. I have always found good results ensue from spring pruning. I think that it is not good practice to cut out the shoots when the tree is in active growth. I prefer to do this when growth is less active in early spring.

Disbudding the young growths of a Peach often puzzles the amateur. They are usually very freely produced, and most of them must be removed. When they are about 1 inch long or even less every other one may be rubbed off, taking care, however, to retain one or two suitably placed for training as new shoots. Select them as near the base of the old shoot as possible, and always leave the terminal one. In another week or ten days remove a few more, and then, in the course of another fortnight, say, finally thin them to the number required. It is not easy to say definitely how many should be left. Always retain one good one at the base, however, and the terminal shoot. If there is

room for one or two more shoots, then allow young growths to develop towards the middle also, one on either side the old shoot.

A. H. P.

CANKER IN APPLES.

FORTUNATE is the man whose Apple trees grow vigorously and present a clean, unbroken surface of bark from trunk to topmost branch, with no gaping wound caused by the canker fungus (*Nectria ditissima*). There are trees of this character, of course, and places where canker is unknown, but there are more instances in which growers are troubled by this all too common plague amongst Apples, and as yet we have no infallible cure for it nor a sure and certain means of prevention. The canker seems to fix its evil grip on certain varieties in preference to others, particularly if they are growing on a stiff and cold soil, and most people know Ribston Pippin, Lord Suffield, Wellington, and others to be great sufferers, though even here it appears to be largely a question of soil, because in some favoured districts even the above varieties are comparatively free from canker.

It is very disappointing to spend time and money over the purchase and planting of trees, watch them grow satisfactorily for a few years, and then, when they should begin to return something in the way of crop, see those well-known gaping wounds appear in the bark, which are often followed by the death of the branches. In certain instances no doubt growers are victims of circumstances in regard to canker. Do what they will, the trees suffer and Apple growing becomes a disappointing business, but there are hundreds of cases in which the growers themselves are wholly or partly responsible for the trouble through not paying attention to the requirements of the trees in one way or another.

It may be observed that Apples invariably canker when grown in soil that is cold and sour for the want of proper drainage, and to plant under these conditions is only courting failure. It requires no magician's power to tell whether

soils need draining or not, and, if such is the case, some means should be adopted for carrying away superfluous water before planting is done. Thin land, where the subsoil of stiff, retentive character is close to the surface, is not the best for Apples, and canker frequently asserts itself when the roots penetrate into this unkindly soil. Obviously the thing to do when it is desired to grow Apples under such conditions is to plant practically on the surface and devise every possible means of feeding the fibres, thus preventing them from penetrating into the subsoil. In many cases no doubt the predominating cause of the canker trouble can be summed up in the one word—poverty.

For some unexplained reason many people seem to have the idea that fruit trees want no manure, and will go on indefinitely with no other food than that which Nature provides in the soil. What a mistake it all is, and how the poor trees suffer through it! There are hundreds and thousands of trees to-day, cankered and stunted, which would never have been in this unsatisfactory condition if only an occasional dressing of good animal manure had been spread over the roots when they needed some assistance to keep them in vigorous health. Where trees are growing on land under cultivation artificial manures may be substituted for animal, and a mixture of four parts superphosphate and three parts kainit pricked into the surface soil over the roots at the rate of 4oz. to the square yard is good. Not much nitrogen is needed for healthy trees, but to encourage fresh growth in cankered specimens a top-dressing of nitrate of soda at the rate of 2oz. to the square yard over the spread of the roots in the spring is excellent.

The neglect of apparently small things often results in bad attacks of canker, and a case came before my notice the other day. A man planted some young trees a few years ago, and at the same time carefully staked them, but he did not consider the fact that the stems would swell, and recently, when it occurred to him to unfasten the ligatures, he found that the stems had rubbed against the stakes, and there were big canker wounds where the bark had been bruised. Often one sees the branches of trees rubbing each other until the bark is worn through, and there canker is safe to assert itself, yet by a little timely attention in removing shoots that rub each other the trouble might be averted. Again, the bark on newly-planted trees is sometimes gnawed by rabbits and hares, and the branches are damaged by horses and horned stock, and all for the want of proper staking and protection. Damage of the above kind is a sure and certain cause of canker. Lastly, American blight is a prolific means of introducing canker. The aphides are allowed to infest trees, and they suck the juices from the young shoots, which causes the bark to split open and warty swellings appear. The opening of the bark gives the opportunity for canker, which promptly sets in and completes the work of destruction begun by the woolly aphid.

It may be seen, then, that the cause of canker can be traced to several sources, including unsuitable soil, poverty for the want of manure, disposition of the variety to canker, and injury to branches by insects, animals, and careless handling. When a tree has been let go for years till it is nothing more or less than a mass of canker the chances of renovating it are not great, and some specimens are not worth the trouble, but the thing to do is to endeavour to prevent the evil by sound and thorough cultivation, and, if canker appears, promptly feed the trees to encourage healthy, vigorous growth. Something may also be done in the way of dressing the wounds, and I have known canker in its early stages to be completely mastered by scraping out the wounds with a blunt knife and dabbing in a little Stockholm tar with a painter's brush. Lastly, I have seen badly cankered trees headed back and grafted with a vigorous growing variety like Bramley's Seedling, and the latter has infused such vitality into the stock that big, gaping

canker wounds have completely healed over. There is no magic way of either preventing or curing canker, and in some bad cases Apple growers are victims of circumstances and have claims to sympathy, but often its presence is due to neglect in one direction or another, and the canker trouble, generally speaking, would be far less serious if more attention were paid to the details of care and cultivation. G. H. H.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

WILD FLOWERS IN SOUTH AFRICA.

[TO THE EDITOR OF "THE GARDEN,"]

SIR,—English readers, wrapped in fog and frozen with cold, may like a few notes from a land where flowers and sunshine are equally brilliant. In a little brochure a graceful writer, well known and esteemed here as an advocate for the claims of the Aloe, the emblem flower of South Africa, observes: "The finest specimens as regards colouring that I have seen were in a collection of blooms from Gamtoas River. Since the suggestion offered—now some few years ago—that the Aloe should be the emblem flower of South Africa, the cultivation of this interesting plant has been largely increased. There are few gardens without some specimens."

A few notes of some of the more conspicuous indigenous flowers now in bloom in the immediate neighbourhood of Port Elizabeth may be of interest to the numerous readers of THE GARDEN, especially as the floral display has been much more abundant than for years past, owing to a more regular rainfall in this part of the colony. The Christmas flowers—*Jasminum officinale*, with its starry blooms, and the handsome *Pavetta caffra*—are making a brave show. Among the finest of the bulbous plants just now are grand specimens of *Cyrtanthus obliquus* and the bright scarlet *C. spiralis*. *C. uniflorus*, with its striped creamy blooms, is also very abundant. Rarely have the specimens of *Erica cerinthoides*—which has the widest range by far of the Heaths in South Africa—been so fine. Thanks to the plentiful rains the Orchids also are in much greater force than usual. Among the finest of these local specimens is *Disa polygonoides*, now met with in the sands to the north of Port Elizabeth, the chief trade route to the interior. The tall orange spikes of this *Disa* make it a most conspicuous object.

Among other Orchids which are now in bloom in the sands—which are being fixed, with a great measure of success, to prevent their encroachment on the harbour—is the beautiful pink *Satyrium*, named after the late Mr. Hallack, a highly esteemed citizen of the town. Mr. Dwyer, the representative of the Crown Forest Department, prevents the destruction of these rare and beautiful plants, which grow in marshy localities in an inch or two of water. Another now just appearing is *Disa lacera*, which in a month or two will be most abundant. The lovely blue *Nymphæas* are very plentiful in the Baakens River, and the pure white spathes of *Richardia africana* form a beautiful contrast with their dark green leaves. *Watsonia angusta*, with its striking scarlet spikes, met with in stony, exposed places, has been much finer than usual. Among the more conspicuous of the flowers of the season is *Agapanthus umbellatus*, so familiar to people at home; the white variety is rarely met with. Among plants in bloom of duller hues are the large chocolate-coloured bells of *Pachycarpus grandiflorus*, very novel and uncommon. WM. KEMSLEY.

Port Elizabeth, Christmas, 1904.

JAPANESE QUINCE IN FRUIT.

[TO THE EDITOR OF "THE GARDEN,"]

SIR,—The fruits of the plant shown in the photograph are those of the common *Cydonia* (*Pyrus*)

japonica. As the fruit is never or very rarely seen in the North or in the Midlands, I thought the photograph might be interesting to your readers. The fruit is about the size of a small Apple, with a slight hollow at each end. It has a rather pleasant odour, but is not edible.

School House, Oundle.

C. TILL.

[We believe an excellent preserve can be made from the fruit.—Ed.]

THE BLUE-FLOWERED COLEUS.

[TO THE EDITOR OF "THE GARDEN,"]

SIR,—Your correspondent Mr. J. Mayne (page 34) has much to be thankful for in his favoured South Devon clime, for the terrible fog experienced in so many places about a week before Christmas has, at least in the London district, almost denuded the plants of this *Coleus* of leaves; indeed, the amount of greasy soot deposited on the glass has, I think, never been surpassed, and a considerable amount of rubbing was necessary in order to remove it. That pretty winter-flowering Labiate *Moschosma riparium* lost both flowers and foliage; *Bouvardias* were burnt up,



JAPANESE QUINCE (*PYRUS JAPONICA*) IN FRUIT.

Crotons lost large quantities of leaves, *Pelargoniums* of the various sections were reduced to nearly bare stems, *Euphorbia fulgens* stands without a leaf, and the *socotrana* hybrids of *Begonia* lost both flowers and buds. A great many *Acanthads* have also suffered severely; in fact, the majority of indoor plants show signs of injury. Both the expanded flowers and unopened buds of Orchids have either dropped or are quite burnt up, even *Cypripediums*, which resist fog better than most of their relatives. T.

DAPHNE MEZEREUM GRANDIFLORUM.

[TO THE EDITOR OF "THE GARDEN,"]

SIR,—It is a matter for surprise that such an enthusiastic plantsman as your correspondent Joseph Meehan (page 35) should be unacquainted with the autumn-flowering variety of the *Mezereon*, for though uncommon it is fairly well known on this side of the Atlantic, and can be obtained from nurserymen who make a speciality of the choicer shrubs. The charm to many of novelty

cannot in any way be claimed for this variety, as it was referred to by Loudon, over sixty years ago, in the following terms: "Habit spreading; also with longer leaves than the species, and producing its flowers in autumn. A most desirable shrub, being commonly covered with its gay pinkish blossoms from November to March." To lovers of the *Mezereon*, so valuable for its early blooming, this variety should commend itself, for when at its best comparatively few outdoor shrubs are in bloom. Compared with those of the type they are considerably larger, measuring sometimes nearly three-quarters of an inch across, while they are also of a richer purple. The pleasing fragrance, so pronounced in the case of the common *Mezereon*, is also possessed to an equal extent by this variety. Apart from the white, red, and autumn flowering forms of *Daphne Mezereum*, a double white variety was figured many years ago in THE GARDEN, and it also occurs in the "Kew Hand List"; but it must be regarded as exceedingly rare. H. P.

[TO THE EDITOR OF "THE GARDEN,"]

SIR,—To supplement the note on this delightful spring-flowering shrub which appeared in THE GARDEN of the 21st ult., I may mention that I possess a large plant, which many years ago I found in the brushwood clothing one of the valleys above Montreux. It is evidently *Daphne M. grandiflora*, for its flowers are larger and darker than those of the type, and begin to open early in November. Given good weather they keep on until the others commence to flower. That they vary greatly is shown by a weak and later one from the same valley, which has been growing beside this robust one. They evidently bear a severe cutting back, for a third Swiss seedling, accidentally beheaded in an autumn tidying up, has quickly developed from a weakling into a sturdy bush. I find many seedlings come up naturally in my garden, so I have never had occasion to preserve and sow the berries. I was given some seedlings by a friend, and now they are large, symmetrical bushes about 5 feet high and 15 feet in circumference. My early form is on a north-east aspect, behind a high brick wall, but I cannot say if this has any effect on its precocious flowering.

Riverston, Nenagh. T. H. POE (Captain).

OSTROWSKIA MAGNIFICA.

[TO THE EDITOR OF "THE GARDEN,"]

SIR,—It was a pleasure to read Sir Michael Foster's valuable letter on this splendid plant, which, as he says, is well deserving of its appellation *magnifica*. With Sir Michael's statement that "there can be no question about its being hardy," those who have investigated the condition of the plant in various localities in England will agree, for there are other cold districts besides Great Shelford where it remains in vigorous health. The hint that it should be kept dry at the root during the winter is particularly useful, for it is probably owing to neglect of this precaution that the majority of failures are due. Mr. Archer-Hind had in his garden for some years a fine specimen of the white variety of *Ostrowskia* over 5 feet in height, which I always looked for on approaching the house in the summer. In 1903 I missed it, and on enquiring the cause was told that the usual winter protection had been omitted. Last year this plant threw up a weak growth, so that in all probability it will, with adequate winter protection, regain its former proportions before long. I protect my plants with conical hand-lights, known in the trade as cap-glasses. These are placed over the plants as soon as the flower-stems have died down, and not shifted until growth appears in the spring, when they are tilted up until the plants are 6 inches in height, and then removed. With a mulch of leaf-mould and well-rotted manure and a fairly heavy spring and summer rainfall—last year we had

about 1½ inches in April, 4 inches in May, 1½ inches in June, and 6 inches in July—I have found no difficulty in adequate moisture, but I have never been able to obtain perfect seed, though *Romneya Coulteri*, hard by, seeds freely. The soil in my garden is light and stony, but about 3 feet in depth, and where the *Ostrowskias* are growing it is liberally mixed with old mortar rubbish. The plants never attain a greater height than 5 feet, though I am informed that in Northamptonshire they grow to a height of 7 feet. I have the lavender and pure white forms, the largest flowers being 5 inches across, and lasting in water for a fortnight. The danger of transplantation, alluded to by Sir Michael Foster, is one of the greatest hindrances to the culture of *Ostrowskia magnifica*, for, no matter how carefully the roots may be lifted, and even if they be removed from the ground without breakage, a most difficult matter, they often refuse to make any subsequent sign of growth. A few years ago I lifted a plant with the greatest care and gave it to Mr. Archer-Hind, but from that day to this it has never appeared above ground. S. W. FITZHERBERT.

Kingswear, South Devon.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

NAMES OF PLANTS.—O. H. M.—The *Narcissus* is *N. minimus*, and the *Cyclamen* *C. hederæ-folium*.—C. T.—Most probably *Cypripedium barbatum*; impossible to say more definitely from leaf alone.—Delta.—1, *Euonymus japonicus aureo variegatus*; 2, *Calathea* (*Maranta*) *kerchoviana*; 3, *Euonymus japonicus latifolius albus*; 4, *Euonymus japonicus ovatus aureus*; 5, *Selaginella cuspidata*.—Stirling.—It is impossible to say with certainty from your vague description, but we think the *Orchid* is *Oncidium dasystyle*. The pseudo-bulbs are about 1½ inches high, leaves 6 inches long; the flowers are produced in a slender raceme about 18 inches long. The sepals and petals are yellow and brown; the conspicuous part of the flower is the large blackish crest on the lip, much resembling a bee. It grows best in a fairly cool house.

NAMES OF FRUITS.—C. F. Ascot.—1, Golden Nonpareil; 2, Ribston Pippin (fine fruit); 3, Sugarloaf; 4, Calville Rouge.—C. E. F.—Rosemary Russet.—Mackereth.—The Apple is Pickering's Seedling.

NATURALISING COTTAGE TULIPS AND ANEMONE FULGENS (*Poppy*).—In many instances these are quite a success in grass, particularly on chalky soils and in very sandy loam.

LILIAM BULBOCODIUM (*E. R.*).—We regret we do not know of any Lily bearing this name. Is not *Narcissus Bulbocodium* or *Lilium bulbiferum* the plant you seek?

POLLARDING TREES (*B. B.*).—The best time to cut back or pollard deciduous trees is when they are dormant, hence no time should be lost now, as the sap will soon be active.

BULBS IN WATER (*Poppy*).—These cannot be grown with success or with any certainty of flowering another year. Some may recover if planted in good garden soil for two seasons, but as a rule they are not worth the trouble.

HARDY CYCLAMEN FROM SEEDS (*E. R.*).—Yes, you can rear hardy *Cyclamen* from seeds, sowing in pans of light sandy soil forthwith, and placing under the shelter of a fence or in a cold frame. They are slow of germination, and equally slow in growing to flowering size, but are none the less certain of growth. Some shade is desirable in the early stages of growth. Messrs. Thompson and Morgan of Ipswich supply seeds of these.

BONES INTO BONE-MEAL (*An Amateur*).—We cannot learn of any contrivance for grinding bones in a small way suitable for an amateur; indeed, owing to the powerful mill that would be required for the purpose, it would sure to be an expensive item. At the same time, bones roughly broken with a hammer may be dug into the ground, and thus form an effective and lasting fertiliser.

HOUSE FACING NORTH (*F. P.*).—Hardy Ferns would be the best thing to grow in your house if you are unable to heat it. *Lapageria*, a climber with beautiful pendent wax-like flowers, rose and white, would probably succeed if planted in good soil and trained over the roof, providing you can keep frost out of the house. You might arrange a small rockery, planting it with some of the many beautiful sorts of hardy Ferns. If the other part of the garden you refer to faces north and you want something large, why not plant it with Japanese *Anemones* if you want a flowering plant. If you are content with evergreens, plant *Berberis*, *Aucuba*, and *Ivy*; if deciduous trees, the *Forsythia*.

SHRUBS FOR BANK (*A. W. Leatham*).—Several shrubs will live and thrive fairly well on the bank, but the ground must first be prepared for them. A bank of soil that has become covered with grass will nearly always be found dry a little way below the surface, so that your bank would be all the better if deeply trenched before being planted, working in some well-decayed manure about a foot or so from the surface. Evergreen shrubs that would suit your purpose are *Hollies* in variety, *Yew*, *Box*, *Phillyrea media* and *P. vilmoriniana*, and *Olearia Haastii*, a dwarf evergreen with white scented flowers. The common *Savin* (*Juniperus Sabina*) and the *Butcher's Broom* (*Ruscus aculeatus*) are dwarf evergreens that you will also find useful. Of deciduous flowering shrubs: *White and yellow Brooms*; *Deutzia crenata*, white; *Philadelphus coronarius*, white; *Spiræa Thunbergi*, white; *Colutea arborescens*, yellow; *Ribes sanguineum*, red; *Spiræa Anthony Waterer*, rosy crimson; *Weigela Eva Rathke*, crimson; and *Lilacs* in variety can be recommended. Any steep parts of the bank could be clothed with *St. John's Wort* and *Periwinkle*. *Thorns*, *Laburnums*, and *Pyrus floribunda* are small flowering trees that can be used if required. All these plants thrive in your neighbourhood, and will also grow almost anywhere, so that we have every confidence in recommending them to you.

CUCUMBERS IN GREENHOUSE (*W. H. M.*).—There is no reason why you should not grow Cucumbers successfully in your greenhouse, but as you have no heat except that given by a small stove we should not advise your starting before the middle of March. Be careful to obtain plump seeds, discard any that are soft and apparently empty. Sow them singly in small pots filled with leaf-soil and loam. Put a few crocks at the bottom for drainage. Cover the pots with a piece of glass until the seeds germinate. Keep the seedlings within 12 inches of the roof so that they may grow sturdily. When they are about 3 inches or so high they may be planted out in their permanent quarters; they may either be grown in large pots or in a soil upon a hot-bed of

manure and leaves. Stable litter and leaves should be mixed together in equal quantity to make the hot-bed. This should be so high that when the plants are put out they will be, say, not more than 2 feet from the roof glass. Take care that the heat of the bed has subsided somewhat before planting. Thrust in a stick and leave it there a few minutes, if, when withdrawn, it is nicely warm planting may be done; if the stick is hot wait a few days longer. Place a small mound of light soil upon the hot-bed, and opening it out with the hand after it has become warmed, remove the seedling from its pot and insert it, carefully covering up the roots. As the roots reach the outside of the mound of soil more must be added. The roots must be kept covered, if this is persisted with finally the whole surface of the bed will be covered with soil. Always add warm, never cold, soil. Keep the atmosphere warm and moist, it should never fall below 60° Fahr., and should be kept as regular as possible; during sunny weather it will, of course, rise to 80° or more. This will do no harm if air is given at the same time. Never allow the foliage to become very crowded, otherwise the plants will suffer. It is a good plan to have the trellis upon which the plants are trained well covered with foliage before allowing the plants to fruit, they will bear all the better later. The plants ought not to need shading except for a short time after planting, and perhaps when they are getting old. When the young plants are well established pinch out the ends of the shoots, so as to make them produce lateral shoots; these will bear flowers, and eventually fruits. After the plants have borne fruit for a time cut out some of the old wood to make room for new. The fruits are borne upon new growths. Never let the plants suffer for want of water, they need a lot when growing strongly. Give manure water when they are in fruit.

PLANTS FOR NORTH BORDER (*Quomodo*).—If you plant *Daffodils* now you will get some blooms this spring, although they will not be very good, but next year they will be quite satisfactory. We have planted them as late as this, although, of course, they ought to be put in in September or October to give good results the year following. On your border facing north you may plant Japanese *Anemones*, *Lilies* of sorts (*L. candidum*, *L. croceum*, *L. aureum*, *L. Martagon*, *L. umbellatum*, and others), *Violas* (*Pansies*), *Violets*, *Lilies of the Valley*, *Ferns*, *Solomon's Seal*, *Myosotis*, *Primroses*, *Forsythia suspensa* (shrub), *Scillas*, *Snowdrops*, and *Fritillaries*.

POTTING COMPOSTS (*J. A. Rider*).—You need only grow a plant in soil made by pulling into pieces, about the size of a pigeon's egg, the turf from a pasture and another in ordinary garden soil to see which is more to the plant's liking. By turfy loam is meant the combination with the loam of grassy matter, such as pasture grass and roots, all of which, being of a fibrous nature, prevents the soil becoming close and hard, and as it decays also becomes plant food. Loam is a term that may be said to be applied to ordinary garden soil; it is used to distinguish this from leaf-soil, peat, &c. There are many sorts of loam, but that known as turfy or fibrous is best for ordinary purposes for the reasons stated. Besides containing more plant food, it is in better mechanical condition, and is not so liable to become sour and distasteful to plant roots as ordinary garden soil. Leaf-mould consists of decayed tree leaves. The best is obtained from leaves of the *Beech*, *Oak*, *Elm*, *Lime*, *Plane*, *Horse Chestnut*, and *Sycamore*. The two latter do not make good leaf-soil for potting purposes. The best way to obtain good leaf-soil is to collect the leaves and put them, while damp, in a heap to decay. Occasionally turn and mix them to ensure decay; at least a year is necessary to obtain good leaf-soil. It is a good plan to dust soot over the heap when turning it; this clears it of insects.

MOVING HOLLY BUSHES (*Heathercroft*).—April is the best time to move Hollies, but yours should be moved in September with comparatively little risk if the work is carefully carried out. First of all a trench should be dug around the plants of about 2 feet from the main stem. In doing this any roots you encounter should be cut cleanly off. It is probable that you will not find many roots, but the distance they travel from the main stem varies according to age, condition of the soil, and other matters. The soil taken out will, of course, be again returned, and trod firmly in position. Bearing this in mind it will only be necessary to make the trench sufficiently wide for working purposes. When about to remove the plants again take out the soil to a width of 18 inches. Then tunnel underneath, tie some stout canvas or mats around the mass of soil to keep it in place, put some pieces of wood around to prevent the ties cutting into it; then by making an incline to the bottom of the hole at the side the plant is to be taken out, it may by means of planks and rollers be drawn therefrom and removed to its new position. If to be taken some distance a low trolley is very helpful. In planting great care must be taken to work the soil firmly all round, and after it is finished a good watering will be beneficial. Should the weather be hot and dry, which sometimes happens in early autumn, frequent syringing is of great help, as it tends to keep the foliage fresh till the roots are again active.

MAIDENHAIR FERN (*J. McNair*).—An unusual question, for generally the object is to impart a deep rich tint to the fronds of Maidenhair. In order to tone down the dark green the plants should have as much light and, at this season, sunshine as possible; indeed, at all times shading has a tendency to darken the colour, and so have artificial stimulants, particularly soot water. If you have been in the habit of using this by all means discontinue it. Attention to this matter, and exposure to light and moderate sunshine, is the only thing we can suggest to make your Ferns of a pale green.

RENOVATING A GARDEN (*Percival*).—There is not the least doubt that the Poplars and other trees mentioned are largely responsible for the present state of things. Unfortunately, you do not say whether they are in your own garden or in an adjoining one, and if the former whether you may or may not cut them. If you can do as you like in the matter you could top them in such a way as to reduce the extensive shade from them. If these trees are in an adjoining garden you are at liberty to remove any branches that overhang your garden without the consent of your neighbour, though, as a matter of courtesy, you should inform him. Equally detrimental to the garden and its occupants is the endless array of root fibres that extend from the trees. At 4 feet from the trunk open out a trench 2 feet wide and not less than 2½ feet deep, for the express purpose of severing all the roots that extend into the garden. Remove all you possibly can, cutting them clean away with spade or axe while the trench is open. In this way those left in the ground will perish. This done, trench deeply the two side borders. Do it in this way: Dig out across the border a trench 2 feet wide and 2 feet deep at one end, and transfer the whole of the soil so removed to the opposite end of the same border. Then prepare to trench—that is, deeply dig—the border throughout. This will best be done in trench sections of the same dimensions as the one first opened. In trench No. 2 the top soil is dug out 1 foot deep and cast into the bottom of trench No. 1, the lower portion of the soil in No. 2 trench to be dug out and made to form the surface soil for trench No. 1. By continuing to treat the border thus in sections you will have "trenched" it well. A good dressing of lime and well-decayed manure will be necessary. Guano is no good at present. For the garden named some four loads will be

required, the manure to be worked into the border as the trenching is done, burying the manure about 1 foot from the surface. In such a poor soil as you describe you will not err in giving a good dressing of manure also on the surface of the soil when the digging is finished. By getting the trenching done at once, and giving also the surface dressing of manure, the latter could remain to enrich the soil until early April, when the manure could be lightly forked in. Soot or lime could be given as a top-dressing in March, and by these means bring the soil into a better condition. Any refuse could be burnt, and the ashes from this fire, which are valuable and rich in ammonia and other things, could be strewn on the beds or borders. Any rough material could be deeply buried in the trench that you open at the western end to cut off the tree roots, and in this way much useless rubbish may be quickly disposed of. Lightly fork over the soil in April to break it up more finely preparatory to planting. Tuberous Begonias would do well in the centre beds, Asters, Stocks, Calceolarias, and Mignonette in the more shady places, while Tufted Pansies and summer-flowering Chrysanthemums would do well on the border facing south.

EXACUM MACRANTHUM (*A. H. Rydon*).—This is not difficult to strike from cuttings, but as seeds are frequently procurable and grow readily, increase by means of cuttings is not often resorted to. Though a native of Ceylon the temperature of the coolest part of the stove or of the intermediate house is the most suitable for it, and cuttings will root in a close propagating house kept at the same temperature. Failing this an ordinary propagating case in the stove where such things as Crotons are struck may be used with equal success, but care should be taken directly the cuttings are rooted to remove them to a slightly cooler part of the house, otherwise they will become weak, and are also liable to be attacked by thrips. A mixture of equal parts of loam, peat or leaf-mould, and silver sand, all passed through a sieve with a quarter or one-third of an inch mesh forms a very suitable compost for the cuttings, which must be put into clean, well-drained pots. Taking the cuttings is as simple a matter as dealing with those of a Fuchsia, the young growing shoots being chosen for the purpose, but those of medium vigour are preferable to the very strong ones. A length of 2½ inches to 3 inches is very suitable. Cut just below a joint, and remove the bottom pair of leaves. The pots must, after crocking, be prepared by filling them with the above-mentioned soil pressed down moderately firm, and into this the cuttings may be dibbled. The middle of February is a good time to put in the cuttings, which will root in three weeks or a month if carefully attended to for water and a little air given each morning for an hour or two. Shading will be necessary.

FLOWER FARMING (*H. E.*).—We do not know of any book dealing with this subject. Success is achieved by practical knowledge of many and varying crops, untiring energy and business ability, and a fair amount of capital. You give us no idea as to whether you intend to grow open-air crops, or this in conjunction with glass artificially heated. We may say at once, however, that we think there is but little chance of a successful result for the open-air cultivation alone. Competition is very severe. The better plan, for a couple of years at least, would be to engage yourself to one or more of the large growers for market, either paying a small premium or giving your services free or for a nominal wage. If you could obtain a footing in two places—a year in each—you should gain considerable insight into the business. If you advertise for a partnership many would probably gladly avail themselves of the opportunity, but you must gain practical knowledge first. At the end of a probationary period such as we name, you should have gained a good insight into the

practical side of the question. Your employer, too, with whom a clear understanding should exist from the outset, may occasionally grant you the privilege of visiting the markets he is in touch with, and in this way the method of dealing with other crops and their value could be obtained. You should then be in a position to judge for yourself as to what to do. And we are well assured that in after years, if not now, you will see the value of this preparatory period. Having made up your mind to start for yourself your best plan would be to obtain the assistance of a practical man as general foreman, make it worth his while by wages and commission on sales, &c., to take an interest in your affairs, and if you have confidence in his ability let him feel the respect and confidence you repose in him. If you start with a leasehold farm of ten or twenty acres, one acre of this at least should be of glass, or somewhat in this proportion if on a smaller scale. You may probably have other questions to put to us, and if so we shall be pleased to assist you so far as we are able.

CHINESE CABBAGE (*F. M.*).—We have no knowledge of a Chinese Cabbage. We have looked carefully through the best authority on these plants published—Vilmorin's "Vegetable Kingdom"—and can find no reference to a Chinese species. If, as you say, you find plants raised from Chinese seed bolt to flower, no matter at what season raised, the natural inference is that our climate does not suit it, hence its reversion to an annual. Much would, of course, depend on what part of China may be its habitat. It may need more warmth than our climate furnishes, or, on the other hand, our weather may be too mild. We have varieties of the Cabbage, especially the Colewort section, which always bolt to flower if sown in the autumn, but heart in well if sown in the spring or summer. Could you spare a little seed and send it for trial to the Superintendent, Royal Horticultural Society's Gardens, Wisley, Ripley, Surrey, telling him what it is, and asking that it may be grown, and, if possible, identified?

BEGONIA REX (*A. H. Rydon*).—Seeds of Begonia Rex should be treated exactly like those of the tuberous Begonias, except that being stove plants they require more heat. The pots or pans prepared for the reception of the seed must be clean and well drained, and filled to within half an inch of the rim with a mixture of one part loam, two parts leaf mould, and one part silver sand, the whole being well rubbed and incorporated together, at the same time picking out any lumps or stones. Then sift a little of this compost through a fine sieve and put on one side. In filling the pots or pans the ordinary mixture should be pressed down moderately firm and made level, then finish off the surface with about a quarter of an inch of the finely sifted soil. Then water thoroughly in order to moisten the soil, let it drain for half an hour or so, then sow the seed evenly and thinly thereon, giving just a slight dusting of the fine soil afterwards, but not enough to cover the seeds altogether. Then set the pots or pans in a favourable position in the warm house, and cover each with a square of glass, over which paper must be laid whenever the sun shines. The glasses must be taken off every morning to examine the condition of the soil, which should be kept in an even state of moisture. From seed sown in the middle of February the seedlings will appear in a fortnight or three weeks, when the glasses should be tilted, and in a day or two removed altogether. Shading from direct sunshine is necessary. When the first rough leaf—that is, the first beyond the seed leaves—is developed, the young plants should be pricked off singly, using the same kind of soil as before. Again a little of it should be finely sifted for the top, as the delicate roots are less liable to be injured than if there are any lumps in the upper layer.

DAISIES ON LAWN (F. C. C.).—Nothing better than spudding them out or using an old knife, as then the root comes too.

VIOLET LEAVES DAMAGED (F. Sheehy).—The leaves sent are badly attacked with red spider, a common insect pest. A dry atmosphere and dryness at the root should be guarded against. The red spider delights in warmth, dryness, and a still atmosphere. Syringe your plants with a paraffin emulsion, especially the undersides of the leaves, or with $\frac{1}{2}$ lb. of flowers of sulphur, 1 lb. of fresh lime, boiled in 2 gallons of water, then add $\frac{1}{2}$ lb. of soft soap, and when all is well mixed add 2 gallons more water. Syringe the plants twice a week for two or three weeks.

QUESTION.

CARNATIONS WHICH DO NOT BURST THE CALYX.—I shall be much obliged if you will give me in your "Answers to Correspondents" column the names of twelve different Carnations and Picotees which do not burst their calyx.—W. I. [We hope some of our readers will help our correspondent.—Ed.]

SOCIETIES.

EAST ANGLIAN HORTICULTURAL CLUB.

THIS flourishing institution, which has a membership of 293, has just issued its annual report. In this it is mentioned that the proceedings at the monthly meetings have been invested with their usual attractiveness, the exhibitions, competitions, attendances, and general interest being all quite up to the usual standard. From a numerical and financial aspect, the club has again shown an upward tendency, and at the present moment it occupies a stronger position than at any other period of its history. It will be satisfactory to note that the slight check in the growth of membership which was experienced during the year 1903 has this year been overcome, and the margin between new and lost members has on this occasion resulted favourably to the club. Commencing with a total of 279, the new blood added during the year is 49, as against 33 in 1903, and 65 in 1902. They comprise the following classes: 3 honorary subscribers, 10 head gardeners, 5 singles, 8 amateurs, 2 nurserymen's assistants, and 21 under gardeners. The losses through deaths, removals, and other causes amount to 35, as against 39 in 1903, which, deducted from the new introductions, leaves a net gain of 14, making a total membership of 293, consisting of 23 honorary subscribers, 200 ordinary members, and 70 under gardeners. Considering the growth which the club had already experienced during the past six years, together with the somewhat uncertain character of many of the under gardeners' situations, there is every reason for congratulation for the uphill advance which has been effected. In thanking the various members who have helped during the year by their recommendations, they are asked to kindly continue their good offices in the same direction, so that the present strength of the club may be upheld.

BECKENHAM HORTICULTURAL SOCIETY.

MR. A. J. BAKER, J.P., occupied the chair on Friday, the 6th ult., when Mr. Percy Waterer read a most interesting and instructive paper dealing with those varieties of decorative Chrysanthemums which were ornamental in form and colour. His remarks were confined entirely to his own experience. The grower of decorative Chrysanthemums need not worry about the exact dates to select cuttings, pinch the plants, or when the bud of each particular variety must be secured. Yet still the manipulations necessary to obtain the best results from the different varieties would afford the enthusiast plenty of scope for experiment. A careful description of the treatment of the best varieties, new and old, suitable for the various purposes of decoration was given. As an illustration of what a specimen decorative Chrysanthemum should be, Mr. Waterer said he once grew and exhibited a plant of Miss Gertie Waterer (a sport from Snowdrop) carrying over 800 perfect flowers. The would-be successful grower must study every detail, and not be content to follow others. A charmingly arranged basket of the single Chrysanthemum Robert Morgan most effectively illustrated the lecturer's remarks.

REDHILL, REIGATE, AND DISTRICT GARDENERS' ASSOCIATION.

THIS society held its fortnightly meeting on the 17th ult., Mr. W. P. Bound in the chair. About ninety members were present. The subject was "Influence of Manures on Plants," introduced by Mr. Howard of Wye College, this being the first of a series of three lectures. Mr. Bound paid a very high tribute to the lecturer by saying it was owing to these gentlemen giving their time and study to the use of various manures which had in a great measure brought horticulture up to its present standard of perfection. Mr. Howard dealt with his subject in a most comprehensive manner, describing largely the methods of

storing and preserving stable and animal manures, so as to maintain all the best properties contained therein until required for plant food. He also dealt somewhat minutely with the analysis of artificial manures, and said printed forms of the analyses would be distributed among the members at the next meeting. A very helpful discussion followed, and a vote of thanks was accorded Mr. Howard. This closed the meeting.
FREDERICK C. LEGGE.
Pattison Court Gardens, Nutfield, Surrey.

BOTANICAL SOCIETY OF EDINBURGH.

A MEETING of the Botanical Society of Edinburgh was held at 5, St. Andrew Square, Edinburgh, on the 13th ult., the chair being occupied by Professor Bayley Balfour, the president of the society. The president read a very able and interesting paper on "Physiological Drought as a Principle in Gardening." Professor Bayley Balfour remarked upon the fact that one of the most important points in the cultivation of plants lay in the water supply, which was a critical point in gardening. He pointed out how largely the question of the distribution of plants at the present epoch of their history was caused by their relationship to water supply; conditions which depended not only upon the amount of water but the degree to which this could be absorbed by the plants. The professor then ably dealt with the relation of this question to gardening, and showed that the low temperature of the soil, even when wet, affected plants so much as to cause disastrous conditions at certain times, and so produced physiological drought. He thought, therefore, that a proper conception of what constituted physiological drought ought to be acquired by every gardener—a knowledge he could only secure through botanical knowledge. The whole paper was exceedingly interesting, and it is to be hoped that it may be made available in full to those interested in horticulture. Other communications were "The Mosses and Hepaticas collected during the excursion of the Scottish Botanical Alpine Club, 1904," by Mr. L. L. Cocks; and a "Note on the Life History of *Puccinia graminis*," by Mr. P. Johannides.

KINGSTON GARDENERS' SOCIETY.

THE members of this society were favoured on the evening of the 13th ult. with a very capable and lucid lecture on "Hardy Perennials," given by their esteemed president, Mr. E. H. Jenkins. First referring to the old days when as a grower he used to exhibit such fine examples of hardy plants in pots at South Kensington and Regent's Park, Mr. Jenkins went on to deal very fully with the great Iris family, showing its wide range of variety and season and the form of culture needful to each type. He also dealt with Paeonies, Primulas, Pyrethrums, and other perennials, dwelling with particular emphasis on the best times for division; how division, not by cutting but by pulling to pieces, should be effected; periods for planting, soils, and other matters. A cordial vote of thanks on the proposition of Mr. A. Dean was readily given, and a hope was expressed that at some future date Mr. Jenkins would deal with aquatic plants.

RAMSEY HORTICULTURAL SOCIETY.

THE annual general meeting of members of the Ramsey Horticultural Society took place recently in the Reading Room, Lord De Ramsey (the president) in the chair. The balance-sheet, which showed that the society had a balance to the good of £79 9s., of which amount £60 had been placed on deposit at the bank, was passed. The president, in the course of a few words, heartily congratulated those of the committee who had worked so hard, and the society in general, on the result of last year's work. Mr. Gilding proposed the re-election of Lord De Ramsey as their president. He was sure the society could not make a better selection. Mr. G. Rowell seconding, it was carried with acclamation. Replying, his lordship said he and the family would be pleased at any time to forward the interests of the society in any possible way. The vice-presidents were re-elected, and the committee was formed. Mr. Major was elected chairman of the committee. It was unanimously decided to hold the show as usual on August Bank Holiday.

SORN AND CATRINE HORTICULTURAL SOCIETY.

THE annual general meeting of the Sorn and Catrine Horticultural Society was held in the Works Schoolroom, Catrine, N.B., on the 18th ult., Mr. J. B. B. Morton (the president of the society) in the chair. The treasurer's financial statement, which showed a balance to the credit of the society of £16 2s. 4d., was laid before the meeting and approved of. A large committee was appointed, together with the following office-bearers: President, Mr. James B. B. Morton; vice-presidents, Mr. John Macdonald and Mr. Alexander Brown; secretary, Mr. J. Auld; treasurer, Mr. Robert Meikle.

THEALE AND DISTRICT GARDENING ASSOCIATION.

THE committee have great pleasure in presenting their third annual report. At the beginning of the year the membership numbered fifty-five. There are now forty-four on the roll. This decrease is due in a large measure to members leaving the district, and we are sorry to lose such good members as Messrs. West, Soper, Ager, Smailes, Hissey, and Kett. Fortnightly meetings have been held during the early and late months of the year.

The first ordinary meeting was held recently at 7 p.m. Mr. James Young took the chair, and after some preliminary business Mr. W. H. Bristow, Sulhamstead House Gardens, read a paper, entitled "A Chat on Pruning Hardy Fruit Trees," following with practical demonstrations in pruning Pears, Plums, Peaches, Nectarines, Red Currants,

Black Currants, Raspberries, and Gooseberries. Much interest was shown, and in the discussion which followed Messrs. Bullen, Cope, Dyson, Young, and others took part. Some pots of single and double *Primula stellata* were shown by the secretary, Mr. G. C. Rudd. One new member was admitted.

CARDIFF GARDENERS' ASSOCIATION.

At a meeting held at the Sandringham Hotel on Tuesday, the 24th ult., Mr. T. Clarke presiding, Mr. H. R. Farmer gave a very interesting lecture, entitled "Plants and Floral Decorations Suitable for a Private Establishment." Many valuable hints were given in reference to the colouring of foliage and other details, pointing out what to do when occasion arises and what to avoid. His chief advice was to lightly arrange flowers and foliage for a dinner table, and to use the most graceful plants for grouping about the interior of the mansion. Mr. Mayne opened the discussion, which was well taken up by most members. The chairman concluded by moving that the best thanks of the meeting be conveyed to Mr. Farmer for his instructive lecture.

BATH AND DISTRICT GARDENERS' ASSOCIATION.

THE monthly meeting of the members of the Bath and District Gardeners' Mutual Improvement Association was held at the Foresters' Hall. Mr. W. F. Cooling presided over a satisfactory attendance. A remarkable feature of these gatherings are the excellent exhibitions of fruits and vegetables, and at this meeting the collection staged had not deteriorated in quality, and only slightly in quantity. Prominently placed on the table was a beautiful bunch of *Iris stylosa*, and the chairman explained that the flowers had been picked from the garden of Mr. S. H. Robertson, The Lodge, Bathaston, where they had bloomed in the open air. A vote of thanks was passed to Mr. Robertson for sending the flowers. In the usual competition held prizes were awarded to Mrs. Tollemache for a collection of vegetables, and Mr. R. B. Cater for Primulas.

KIDDERMINSTER AND DISTRICT HORTICULTURAL SOCIETY.

THE Daffodil show will be held on Saturday, April 15, the summer show on Saturday, July 15, and the Dahlia show on Saturday, September 16.

ARRANGEMENTS FOR 1905.

February 9, Mr. W. F. Reid, C.E., &c., "Bees and Bee-keeping"; February 18, annual dinner; March 9, Mr. A. Clark, "Chat about Sweet Peas"; June 24, outing; July 29, summer pruning demonstration at the Elms; August 19, outing; October 5, annual general meeting; October 12, Mr. Milburn (curator of Bath Botanic Gardens), "Rock and Alpine Plants"; November 2, Mr. T. Humphreys (curator of Edgbaston Botanic Gardens), "The Best Flowering Shrubs for Winter and Spring"; December 14, Mr. H. H. Thomas (assistant editor of THE GARDEN), "Rambles among Riviera Gardens."

NATIONAL CHRYSANTHEMUM SOCIETY.

ANNUAL REPORT.

IT gives your committee satisfaction to report that the society still maintains a foremost position among the special societies having for their object the culture of some particular flower. The Chrysanthemum, especially as represented by the large exhibition Japanese varieties, continues as popular as ever, while the growth in the commercial value of the flower as a market and decorative subject has been highly satisfactory. Three exhibitions were held at the Crystal Palace in 1904. At the October show the classes for early Chrysanthemums did not fill so well as could be desired. The floral decorations were, as usual, attractive, and some valuable miscellaneous exhibits of Chrysanthemums, Dahlias, &c., were staged. The November show was a very great improvement upon that of 1903, both in respect to the site of the exhibition and the number of entries. In the principal classes for Japanese blooms the competition was very keen, and the specimens very fine in quality. The blooms shown in the vase class formed a very imposing feature; decorations were as usual numerous, and the miscellaneous exhibits were varied and, taken as a whole, finer than at any previous show. The December show suffered somewhat from the damp, foggy weather which prevailed at the time. Still, the exhibition was a commendable one for so late in the season, and distinctly better than that of the previous December. Arrangements have been made with the Crystal Palace Company for three exhibitions to take place at Sydenham in the present year. The dates are October 4 and 5, November 1, 2, and 3, and December 6 and 7. The experiment of holding an exhibition of market Chrysanthemums at Essex Hall on December 14 last proved a distinct and gratifying success, and excellent collections were staged, while the novelty of the exhibition attracted a good deal of public interest. The growers of market varieties for Covent Garden and the salesmen gave their warm and valuable support to the show. A satisfactory sum was raised by special subscriptions for the prizes, and the cost to the society has been repaid. The advisability of holding a show of market Chrysanthemums is under consideration. The financial position of the society is satisfactory, notwithstanding that upwards of £50 additional was given in prizes at the November show as compared with 1903. The reserve fund amounts to £117 16s. 9d., £115 of which is on deposit. Arrangements have been made for holding a conference meeting on early Chrysanthemums in connexion with the October show at the Crystal Palace.

At the annual general meeting, held at Carr's Restaurant on the 6th inst., Mr. T. Bevan presided in the absence, through illness, of the president, Mr. C. E. Shea. The attendance numbered fifty. The annual report and balance-sheet were adopted. In commenting upon the report, Mr. R. Dean (secretary) drew attention to the continued decrease in the number of subscribers since 1897. He hoped that an effort would be made to obtain fresh members. Other speakers also referred to this matter, and urged the necessity for present members to try and obtain others. A vote of thanks was passed to the auditors, who were re-elected. The president, Mr. C. E. Shea, was re-elected and thanked for his past services; a letter of sympathy was also directed to be sent to him. Mr. Taylor was re-elected treasurer; Mr. Bevan, chairman of committee; Mr. Whitty, vice-chairman; and Mr. Harman Payne, foreign corresponding secretary. Votes of thanks were passed to each. Upon the proposition of Mr. Such, Mr. R. Dean was re-elected secretary. In replying, Mr. Dean said that he was now more than seventy-five years old, and thought they might with advantage find a younger man as secretary, but he should be glad to remain in office as long as he enjoyed their confidence.

The receipts at the market show, held in December, were £37 19s. 3d., and the balance, after paying expenses, was £1 8s. 3d. The following amendment of the rules was then resolved upon:

That rule XIV. shall read: XIV. Classification, &c.—“The floral committee shall also be the classification and catalogue committee. It shall be the duty of this committee to determine the classification of varieties of doubtful character; to keep the society's catalogue revised up to date, and to prepare new editions for publication, as required by the executive committee; to draw up each year, for publication in the annual report, a list of the best new varieties of the previous season as supplemental to the society's catalogue. The committee is empowered to obtain such expert assistance as may be deemed necessary. Also to make to the executive committee, from time to time, such recommendations affecting the exhibition of Chrysanthemums as it may appear desirable to adopt in practice.”

That rule XVI. be deleted.

VI. Fellows and Honorary Fellows.—All persons subscribing one guinea and upwards per annum shall be designated Fellows of the Society. Honorary Fellows shall consist of those who by reason of conspicuous service rendered to the Chrysanthemum have earned a title to some special recognition by the society. To add: Honorary Fellows shall be admitted to such of the privileges of the society, on such terms as the executive committee may from time to time determine.

Six new members at 5s. subscription and one at 10s. 6d. were elected. The Brixton, Clapham, and Streatham Horticultural Society and the French Horticultural Society of London were affiliated. Among other questions discussed was that of sending a deputation to the forthcoming exhibition at Paris.

The following were elected members of the executive committee (the number of votes each received is given in brackets): C. H. Curtis (49), R. Kenyon (49), J. McKerchar (48), G. Prickett (48), J. W. Simmons (48), A. J. Foster (45), James Tyler (44), D. B. Crane (43), A. W. Seabrook (39), C. J. Ellis (38), John Green (34), W. Harrison (28), and H. T. Wooderson (26).

KIRKBEAN AND DISTRICT HORTICULTURAL SOCIETY.

At a meeting of the committee of this society, held at Carsethorn on the 4th inst., Mr. W. D. Douglas, the School House, Kirkbean, was unanimously appointed honorary secretary in place of Mr. S. Arnott, who is removing from the district. The date of the show was fixed for August 17.

ABERDEEN CHRYSANTHEMUM SOCIETY.

The annual general meeting of the Aberdeen Chrysanthemum Society was held in the Music Hall Buildings, Aberdeen, on the 28th ult., when there was a large attendance of the members. The annual statement which was submitted to the meeting showed that the society was in a very prosperous condition. The show in November last was exceedingly successful, and the balance to the credit of the society amounted to £195 9s. 11d. The income for the year was £414 8s., the takings at the door having increased by about £50. As a result, the balance in favour of the society was about £49 more than that of the previous year. The report was adopted unanimously. The following office-bearers were appointed: Honorary president, Lord Provost Walker; president, Mr. James Esslemont; vice-president, Mr. A. Kynoch; secretary and treasurer, Mr. M. H. Sinclair; auditors, Messrs. M. Haffie and Tarras; together with a large committee. It was decided to hold the show this year on November 17 and 18, and, as the available space in last year's show has proved too limited, it was agreed to engage the entire suite of the Music Hall Buildings.

LIVERPOOL HORTICULTURAL ASSOCIATION.

The twenty-sixth annual meeting of the above society was held on the 28th ult., at the society's office, Liverpool, Mr. Thomas Foster presiding. The report read by the secretary shows an excellent year's work. The entries at each exhibition proved a record, whilst the quality fully maintained its high order; the number of visitors were: Spring show 2,051, and at the autumn 4,354; total 6,405.

The lectures held during the winter months are not so well attended as they deserve to be. The balance sheet also showed a favourable surplus brought forward of £195 10s. 10d.; receipts, spring show, £41 15s. 7d.; autumn,

£168 8s.; subscriptions, £314 11s. 8d.; advertisements, &c., £24 7s. 8d.; total, £744 19s. 6d. Expenses spring prizes, £93 7s.; hall, music, &c., £85 10s. 10d.; autumn prizes, £146 5s.; hall, music, printing, &c., £117 8s. 8d.; general expenditure, £85 3s. 1d.; total, £527 14s. 7d.; leaving a balance in hand of £217 2s. 2d.

The usual sums of three guineas and two guineas were voted respectively to the Gardeners' Royal Benevolent Institution and to the Gardeners' Orphan Fund.

The Right Hon. Lord Mayor of Liverpool was elected president, Mr. G. Blackmore sub-treasurer, and Mr. Harold Sadler secretary. Messrs. Harwood Banner and Sons and Mr. R. G. Waterman were all re-elected.

BROUGHTY FERRY HORTICULTURAL ASSOCIATION.

THIS association opened its eighteenth series of winter meetings on the 24th ult., when there was an excellent attendance of the members, and the spirit which prevailed gave promise of a successful session. The chair was occupied by Mr. James Slater, who made a few remarks appropriate to the beginning of the course of meetings. A most interesting and practical paper was read by Mr. A. MacLennan, The Gardens, Laurel Hill, Stirling, the subject being “The Cultivation and Arrangement of Hardy Perennials for Flower and Effect.” Mr. MacLennan gave a good account of the best methods to follow and the most suitable plants to use for the purpose indicated in the title of the paper. A valuable discussion followed.

WOOLTON CHRYSANTHEMUM SOCIETY.

The annual general meeting was held on the 27th ult., Mr. Neil Gossage presiding. The report submitted by the secretary proved that the society had enjoyed a most prosperous year. The entries at the show proved a record, exceeding those of last year by over 100. The balance sheet, read by the hon. treasurer, showed an upward tendency, the subscriptions amounting to over £80, an increase of £7. The balance in the bank, £37 5s. 11d., was slightly above that of last year. The statements were accepted by the members with applause.

An application to become affiliated with the National Chrysanthemum Society was unanimously approved. The election of officers: Treasurer, Mr. Neil Gossage; secretary, Mr. W. D. Skinner; sub-treasurer, Mr. R. G. Waterman, all being re-elected. A cordial vote of thanks to Mr. Gossage was carried with applause.

CROYDON HORTICULTURAL SOCIETY.

THE fifth annual dinner of the Croydon and District Horticultural Mutual Improvement Society, held at the Greyhound Hotel recently, proved a great social success, eclipsing all its predecessors in this respect. Every branch of gardening—both professional and amateur—was represented in the gathering, which numbered about eighty. Mr. J. J. Reid presided, and was supported by Mr. R. Hooper-Pearson (vice-chairman), Dr. Thomas Jackson, and others.

ROYAL HORTICULTURAL SOCIETY OF PERTHSHIRE.

It is gratifying to learn that a good response is being made to the appeal of the above society for special prizes for their centennial show, to be held in the course of the autumn. In addition to the cup given by the Perth Town Council, already mentioned in THE GARDEN, Messrs. Alexander and Brown have kindly promised a cup; while Mr. Henderson, fruiterer, and the General Accident Insurance Corporation will give medals. It is expected that the list will be still further augmented.

TAYPORT HORTICULTURAL SOCIETY.

THE annual general meeting of the Tayport Horticultural Society was held recently, when there was a large attendance. The report of the treasurer was considered a satisfactory one, the balance to the credit of the society being about £9. Office-bearers were appointed for the current year, these being: Chairman, Mr. William Dowie; secretary, Mr. W. M. Young; treasurer, Mr. John Henderson; members of committee, Messrs. A. Beat, D. Beath, J. Berrie, J. Gilmour, J. Halley, D. Jolly, J. Keddie, W. Melville, W. M' Rae, and A. N. Robertson.

BIRMINGHAM AMATEUR GARDENERS' ASSOCIATION.

THE committee records that the results are generally satisfactory, but they would like to be in a position to congratulate the members on greater progress. Considering the number of years the association has been in existence, and the time and labour which have been devoted to it, it should receive a larger measure of support from local amateur gardeners. The hon. secretary is Mr. W. B. Griffin, 11, Ivor Road, Showell Green. We hope that Birmingham amateur gardeners will give increased support to the local society.

LATE NOTES.

Royal Horticultural Hall deficiency.—While the council congratulate the Fellows on the raising of so large a sum as £25,178 towards the building of the hall, they cannot but look upon it as a misfortune that there still remains a debt on the building fund

of £8 989. The council make an earnest appeal to the Fellows to help in paying off this debt, and invite every Fellow to send a contribution at once for this purpose, so that in the new century of the society's existence it may not be hampered by a heavy deficiency. The hall, in addition to its being the lightest in London, possesses splendid acoustic properties, and is being eagerly enquired after for concerts, bazaars, shows, and other functions, and the council trust that when the building becomes thoroughly known the rents receivable from such lettings will materially help towards meeting the heavy cost for ground rent, rates and taxes, &c., and general maintenance, all of which would otherwise fall on the society's annual income.

Victoria Medal of Honour in Horticulture (V.M.H.).—The vacancy in the list of the Victoria Medallists, caused by the death of the Dean of Rochester, has been filled by the appointment to this distinction of the Right Hon. Lord Redesdale.

Obituary.—We regret to learn of the death of Mr. James Edward Ransome (of Ransomes, Sims, and Jefferies, Limited), who died in London, on the 30th ult., after a brief illness, and was interred on the 3rd inst. at the Ipswich Cemetery.

Valuable Orchids in dispute.

The Belgian Tribunal of Commerce is at present examining a case which awakes general public interest, and particularly among English Orchid growers. An amateur of repute in England bought five small plants for about £1,200 of an alleged rare variety of *Odontoglossum crispum* from a firm in Brussels. The plants bought were not in flower at the time, and according to general custom the contract was made on the strength of water-colour drawings said to be the exact reproductions of the five plants when in flower. In due course the buyer found to his dismay that the flowers of these Orchids had none of the superior qualities represented by these drawings, which formed the basis of this contract, and therefore in no way justified the exceptional value paid for them. The amateur, through his counsel, asked the tribunal to find for cancellation of the contract. The defendant pleads that the Orchids may have been exchanged, if not by the plaintiff at least by one of his staff, and that in the circumstances it is impossible to admit of a cancellation of a sale regularly entered into by all parties. Judgment has not yet been given.—*L'Etoile Belge*.

Changes in the London parks.

The recent death of Mr. Kempsall, who was for many years superintendent of Clissold Park, has involved several changes. The chief of these is the raising to a higher rank of the Victoria Embankment Gardens, while Mr. F. W. Wright, who kept the gardens so admirably for three or four years ago, has been requested to take charge of them again. Mr. J. H. Bates goes from the Embankment to Clissold Park, Mr. G. Dodson from Kennington Park to Springfield Park, Mr. T. Weatherstone from Battersea Park to Kennington Park, and Mr. F. Philp, who has hitherto been a foreman-in-charge, now becomes superintendent at Mvatt's Fields.

Ipswich Daffodil Show.—This show will be held at the Public Hall and Saloon on Tuesday, April 18, instead of a Wednesday. The judges engaged are Mr. Herbert J. Catbush, Highgate Nurseries, London, and Mr. James Preece, Warley Place Gardens, Great Warley. A military band will attend. Intending exhibitors are reminded that entries close on Friday, April 14. All those who have not yet obtained a prize list may do so at once by applying to the secretary, Mr. Herbert E. Archer, 13, Museum Street, Ipswich.

Royal Dutch Bulb Growers' Society at Haarlem (Holland).

The president and the council of the Royal Dutch Bulb Growers' Society at Haarlem (Holland) write that the seventh great quinquennial bulb show will be held at Haarlem from March 17

to 21. This exhibition, whose jurors are chosen amongst the most renowned horticulturists of England, France, Germany, and Holland, promises to be of great interest.

Harrow Horticultural Society.—This society's show is fixed for July 11.

Derbyshire Horticultural Society.—The annual show will take place at Osmaston Park, Derby, on August 30 and 31.—SIDNEY BURTON, *Canal Office, Derby.*

THE BRITISH GARDENERS' ASSOCIATION.

"THE Aims and Objects of the British Gardeners' Association" was the subject under discussion at a meeting held under the auspices of the Loughborough and District Gardeners' Association at the Town Hall, Loughborough, on the 17th ult., Mr. J. T. Smith presiding over a large and representative attendance of local gardeners. In the course of his address, Mr. W. H. Divers, head gardener at Belvoir Castle, and member of the committee of selection of the association, after giving a most interesting account of the early history of gardening and the great advancement that had been made in all branches of gardening within recent times, said that, most unfortunately, there had not been a corresponding advance in the wages paid to gardeners. He then proceeded most carefully and lucidly to explain the objects and programme of the association, pleading that hearty support should be given to it by both employer and employed. After some discussion, upon the motion of Mr. D. Roberts of Prestwold Gardens, Loughborough, it was unanimously resolved that "all those present pledge themselves to give their support and co-operation to the British Gardeners' Association." Mr. W. Begbie having been elected local secretary, the usual hearty votes of thanks were accorded to the lecturer and chairman.

Meetings for the purpose of organising branches of the British Gardeners' Association will be held in the following towns: Norwich, February 8; Leeds, February 11; Birmingham, February 13. Also in Manchester, Liverpool, Bath, Crawley, Newport (Mon.), Exeter, Wylam-on-Tyne, and Altrincham. It is hoped that gardeners residing near any of these towns will make an effort to be present at the meetings. Up to the present meetings have been held in the following towns: Oxford, Haslemere, Bournemouth, Caterham, Redhill, Sunderland, Ipswich, Swansea, Cardiff, Loughborough, and Newcastle. Secretaries of gardeners' societies are invited to communicate with the secretary of the association with a view to making arrangements for meetings in their respective districts.

A very large and representative meeting of the gardeners and nurserymen of Cardiff and Newport districts was held at the Town Hall on the 16th ult. to consider the advisability of organising a local branch of the British Gardeners' Association. Mr. Stephen Treseder, F.R.H.S., presided. Mr. R. Hooper Pearson, a delegate of the London executive, and Mr. W. W. Pettigrew (superintendent of parks, Cardiff) were the principal speakers. Mr. W. W. Pettigrew, in opening the proceedings, urged need of co-operation among gardeners. Mr. R. Hooper Pearson expounded the aims and ideals of the association. These are briefly the bettering of the conditions of labour and wages of the gardeners, and at the same time raising the standard of the gardener and gardening, so that the employer will be benefited as much as the employed. Mr. Hugu. A. Pettigrew (head gardener to Lord Windsor, St. Fagan's, Cardiff) proposed that a branch of the British Gardeners' Association should be formed to embrace the Cardiff and Newport districts. A number of gardeners in the district had already, he said, joined the association. By forming a branch, however, the members would have more weight and influ-

ence in helping forward the aims of the association. Mr. Fred Treseder seconded, and the resolution was unanimously carried. Mr. Hugh A. Pettigrew was elected hon. secretary.

NOTES FROM THE MARKETS.

COVENT GARDEN MARKET.

AVERAGE WHOLESALE PRICES.

THERE is not much variation in the cut flower supplies. More French flowers are now coming over. The Roses, which are usually a feature at this time, are still scarce, and what do come are of poor quality. English Roses are not quite so scarce as they were, but high prices are still maintained for good blooms. Daffodils are plentiful; Sir Watkin, Horsfieldi, Henry Irving, and other good sorts are now coming in. Tulips are most abundant. Lily of the Valley has been over plentiful for some time. Carnations are fairly plentiful. Chrysanthemums are now getting over; a few good blooms are seen. Some nice fresh blooms of Godfrey's Winter Queen were making 3s. per bunch. Lilies of the usual sorts are well supplied. Violets are more plentiful; some very fine-grown are seen. Snowdrops and Wallflowers are now plentiful. O. chid bloom includes very fine Catleyas, Dendrobiums, Lælias, Cælogynes, and Odontoglossums.

In pot plants Azalea indica, Genistas, Cinerarias, Primulas, Hyacinths, Begonias, Daffodils, Ericas, and Marguerites are the chief things seen. Cyclamen should not be omitted; these are very fine just now. Ferns, Palms, and other foliage plants are plentiful, with little variation in prices.

In fruit there is little variation. Grapes may go up in price shortly. Good English Apples are advancing. The Canadian are also dearer for best samples. Canary Tomatoes are very fine and make from 4s. to 6s. per dozen pounds.

FLOWERS.

		FLOWERS.		<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	
Anemones	..	per dozen bunches	3	0	to	4	0	
Azalea indica alba	..	"	"	4	0	"	6	0
" mollis	..	"	"	12	0	"	18	0
Bouvardia	..	"	"	6	0	"	8	0
Calla æthiopica	..	blooms	3	0	"	5	0	
Camellias	..	"	"	2	0	"	3	0
Cattleya labiata	..	"	"	10	0	"	12	0
Carnations	..	bunches	18	0	"	30	0	
" special American varieties	..	blooms	3	6	"	6	0	
Cyclamen	..	bunches	6	0	"	8	0	
Cypripedium insigne & others	..	blooms	2	6	"	3	6	
Dendrobium nobile	..	"	"	2	6	"	3	6
Daffodils, yellow trumpet	..	bunches	6	0	"	9	0	
" double	..	"	"	7	0	"	10	0
" princeps	..	"	"	7	0	"	9	0
Eucharis amazonica	..	blooms	3	0	"	4	0	
Euphorbia jacquiniiflora	..	per bunch	2	0	"	3	0	
Freesia refracta alba	..	per dozen bunches	3	6	"	4	6	
Gardenias	..	blooms	2	0	"	3	0	
Hyacinths, Roman	..	bunches	6	0	"	8	0	
Lilac, English forced	..	per bunch	3	0	"	4	0	
" French	..	"	"	3	6	"	4	0
Lilium auratum	..	"	"	2	6	"	3	0
" longiflorum	..	"	"	4	0	"	5	0
" lancifolium album	..	"	"	2	0	"	2	6
" rubrum	..	"	"	2	0	"	2	6
Lily of the Valley	..	per dozen bunches	6	0	"	15	0	
Lycaste Skinneri	..	blooms	5	0	"	6	0	
Marguerites, white	..	bunches	3	0	"	4	0	
" yellow	..	"	"	2	6	"	3	6
Myosotis	..	"	"	6	0	"	—	
Narcissus, Paper-white	..	per dozen bunches	3	0	"	4	0	
" Soleil d'Or	..	"	"	3	6	"	5	0
" Gloriosa	..	"	"	3	0	"	4	0
Odontoglossum crispum	..	blooms	2	6	"	3	0	
Primula sinensis, dbl. white	..	bunches	5	0	"	6	0	
Pelargonium (show), white	..	"	"	6	0	"	8	0
" (zonal), dbl. scit.	..	"	"	6	0	"	9	0
" salmon	..	"	"	6	0	"	8	0
Poinsettias	..	heads	6	0	"	9	0	
Ranunculus	..	bunches	9	0	"	12	0	
Roses (English)	..	blooms	5	0	"	12	0	
" (French)	..	"	"	1	0	"	2	0
Snowdrops	..	bunches	1	0	"	2	0	
Tuberose	..	"	"	6	0	"	8	0
" on stems	..	per bunch	0	9	"	1	0	
Tulips	..	per dozen bunches	6	0	"	12	0	
Violets, blue	..	"	"	2	0	"	3	0
" Parma	..	per bunch	3	6	"	5	0	
Wallflowers	..	per dozen bunches	2	0	"	3	0	

ORNAMENTAL FOLIAGE.

Asparagus plumosus ..	per bunch	1	0	to	2	6
" .. long trails, each	0	3			1	0
" .. Sprengeri ..	per bunch	0	9		1	0
Adiantum cuneatum ..	per dozen bunches	6	0		9	0
Cycas leaves ..	each	1	0		1	6
Myrtle ..	per dozen bunches	4	0		6	0
Mediola asparagoides (Similax) ..	long trails, per bunch	2	0		3	0
English Fern (various) ..	per dozen bunches	3	0		—	
Berberis Mahonia ..	"	2	6		3	0
Ivy leaves (bronze) ..	"	1	6		2	0
" long trails ..	per bunch	1	0		2	0
" short green ..	per dozen bunches	1	0		1	6

FRUIT.

Apples, English dessert ..	per sieve	4	0		12	0
" .. culinary ..	"	3	0		6	0
" .. American ..	per barrel	12	0		18	0
" .. Newtown Pippins ..	per case	10	0		18	0
Bananas, Jamaica ..	per bunch	5	0		10	0
" .. Canary Islands ..	"	8	0		14	0
Cob Nuts ..	per dozen lb.	5	0		6	0
Cranberries ..	per box	6	0		8	0
Grapes, Alicante ..	per dozen lb.	8	0		12	0
" .. Gros Colmar ..	"	10	0		24	0
Lemons ..	per case	8	0		14	0
Oranges, Valencia ..	"	6	6		10	0
" .. Jaffa ..	"	10	0		12	0
" .. Jamaica ..	"	5	0		7	0
Pears ..	"	10	0		12	0
Pines, St. Michael's ..	each	2	6		5	0

THE EDITOR'S TABLE.

We invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand.

GARDENING APPOINTMENTS.

MR. WILLIAM ROBERTS, for more than two years foreman at Delamere House Gardens, Northwich, has been appointed head gardener to Roscoe Brunner, Esq., at Belmont Hall, Northwich, Cheshire. He enters on his duties on the 13th inst.

MR. G. W. CUMMINS, A.R.H.S., for many years head gardener to the late A. H. Snee, Esq., F.R.H.S., at Wallington, Surrey, afterwards filling a similar position with the late W. H. Lumsden, Esq., Blandie, Aberdeen, has been appointed head gardener to Leigh Goldie-Taubman, Esq., The Nursery, Douglas, Isle of Man.

[We shall welcome intimations of gardening appointments.]

CATALOGUES RECEIVED.

Lilies and Hardy Plants.—Amos Perry, Winchmore Hill, N.

Seeds.—Messrs. W. Smith and Son, Exchange Seed Warehouses, Aberdeen; Hogg and Robertson, 22, Mary Street, Dublin; G. Cooling and Sons, Bath; Frank Dicks and Co., 68, Deansgate, Manchester; E. W. King and Co., Coggeshall, Essex; John Jefferies and Son, Cirencester; Vilmorin-Andrieux et Cie., Paris; Alex. Cross and Sons, Limited, 19, Hope Street, Glasgow; W. Baylor Hartland and Sons, Cork; Cunningham and Wyllie, 98, Mitchell Street, Glasgow; M. H. Sinclair, 156A, Union Street, Aberdeen; Hooper and Co., Covent Garden, W.C.; Dobie and Mason, 22, Oak Street, Manchester; Webb's Wordsley, Stourbridge.

Potatoes.—H. J. Jones, Ryecroft Nursery, Hither Green, Lewisham.

Hardy Flowers and Border Plants.—John Forbes, Hawick, N.B.

Garden Specialities and Requisites.—The Four Oaks Garden Sundries Company, Four Oaks, Sutton Coldfield, Birmingham.

New Chrysanthemums.—H. Cannell and Sons, Swanley, Kent.

Gladioli.—W. C. Bull, Ellington Road, Ramsgate. *Sweet and Culinary Pea Seed.*—F. A. Roscoe, The Golden Orchard, Steeple Morden, Royston.

PUBLICATIONS RECEIVED.

"Index Seminum in Hortis Musei Parisiensis," 1904. Report for the year 1903 of the Botanic Gardens and Domains, New South Wales. "Bulletin de la Société Nationale d'Acclimatation de France." "Bullettino della R. Società Toscana di orticoltura." "Les Roses." "Chemical Fertilisers in the Garden." "Boletim da Real Associação Central da Agricultura Portuguesa."

*. * The Yearly Subscription to THE GARDEN is: *Inland*, 6s. 6d.; *Foreign*, 8s. 6d.

THE GARDEN

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FEBRUARY 18, 1905.

ROYAL HORTICULTURAL SOCIETY.

LAST year was an eventful one in the history of the Royal Horticultural Society, for the society then reached its centenary. This was celebrated by the opening of the Royal Horticultural Hall by His Majesty the King, and the removal of the gardens from Chiswick to Wisley, two events which may be said fittingly to crown the chequered career of this great horticultural association. With its new hall and offices, a properly equipped garden, and a largely increased and ever-increasing roll of Fellows, an even wider sphere of usefulness is opened out. The annual report of the society, presented at the general meeting held on Tuesday last, and which is fully reported in another column, gives some interesting facts with regard to the society's position and progress. The total number of Fellows, associates, and affiliated societies is now 8,360. In 1904 there were 1,383 new Fellows, &c.; deducting resignations and deaths, which number 469, the actual numerical increase is 914, and the net increase in income £1,510 19s.

Although the progress of the society is so satisfactory the council is fully alive to its responsibilities; for instance, we read, "While the council congratulates the Fellows on the raising of so large a sum as £25,178 towards building the hall, they cannot but look upon it as a misfortune that there still remains a debt on the building fund of £8,989." An earnest appeal is made to the Fellows to help in paying off this debt, and the council invites every Fellow to send a contribution at once for this purpose. It is satisfactory to learn that the hall is being enquired after for concerts, bazaars, and other functions, and we hope that when the building becomes better known the money received from this source will materially help towards paying the heavy rates and taxes. Meanwhile, we hope all who have the interest of the society at heart will help to pay off the debt on the hall fund. Free from this burden, the council would be in a position to pay greater attention to the work which needs to be done at Wisley. The council wishes to erect suitable buildings at Wisley to serve as a laboratory for scientific and experimental research in matters pertaining to plant life, diseases, and pests, but

cannot consent to expenditure in this direction in the present financial position of the society. As soon as the hall is paid for, doubtless due consideration will be given to this important matter.

The fortnightly meetings and shows held at the new hall have become most important centres of horticultural interest, and, if possible, they improve from year to year. Here may be seen the plants that are best worth growing as each season comes round, and here also all new plants, flowers, fruits, and vegetables of merit are sent for the critical opinion of the expert. Even if the Fellow had no other privileges than free admittance to these meetings he would get remarkably good value for a guinea; but when we take into consideration the other accessory privileges, such as receiving the Journal, tickets for the special shows held periodically, expert advice about insect pests and diseases and other matters, then it is evident that to be a Fellow of this society is to get more than full value for one's subscription. The Journal, so well edited by the secretary of the society, the Rev. W. Wilks, is a valuable asset, and alone may be said to induce membership. Through its great exhibitions of flowers and fruits and vegetables, its lecturers and committees, its encouragement to kindred societies, its examinations, and in other ways, the Royal Horticultural Society is doing valuable work for gardening and gardeners in this country, and the labours of those responsible for its rapid progress and almost phenomenal success during the past few years cannot fail to meet with the appreciation and recognition they thoroughly deserve.

SHOW CARNATIONS, PICOTEES, & AURICULAS.

As to the objection which "Ignoramus" takes to the way in which groups or "pans" of Carnations and Picotee blooms are shown, I think the obtrusiveness of white cardboard "collars" could be obviated if the collars were made from material of the same colour as the show-board. "Collars," however, have their use to the judges in being a handy means of lifting a flower to examine whether the calyx had been allowed to split too far for keeping the petals within due bounds. A Carnation or Picotee cannot, without risk, be taken up by a petal or two, like a rabbit by its ears! In the good old days every flower was inspected to test the integrity of the "pod," and

a split one was disqualification, as showing that the grower had not taken the pains to tie the calyx of his buds in time to prevent a mischievous split and its consequences.

If a variety is not too thin in the number of its petals, it is a great virtue in the pod to be naturally "not a burster." To a florist of the strict old school every petal is a picture too good to be hidden under a pile of other petals, just as wayward winds may sportively have played with them.

Perhaps it may be said that collars would not be needed if each flower were set in a small green tube, raised a little above the green show-board. That is so; but then, although each calyx would be discernible, still the flowers could not be so readily judged as when the whole full face can be seen at a glance. Neither can the judges count upon having time enough to go through a kind of "letter-sorting" process among Carnation petals, that by natural disposition may be lying three or four deep one above another. This might either conceal a beauty or hide a fault, a result not to be desired either way.

I suppose the question of "dressing" these flowers will ever be a vexed one. Of course, it will not trouble those who grow Carnations merely for broad or distant effects in open borders, nor will it vex the righteous soul who wants them only for decorative purposes indoors. "Dressing" is, after all, but the best way of so arranging the petals that each shall gain its own fair meed of admiration. Also, the art is not so easy as it looks, which, as in other trials of skill, is an enviable virtue and a rewarding joy!

Admittedly, there are extremes in dressing Carnation blooms. Some are dressed to death, pulled about, and stretched as if tortured rack-wise. Others are left confused in a multiplicity of contorted or narrow "strappy" petals. Others, again, may be wanting or be overdone in some class colour of their type, e.g., a self-coloured petal in a "bizarre" or a "flake" Carnation; or a Picotee with splashes or "bars" upon what should be a pure white or clear yellow ground, with just an unbroken edge of some lovely shade in red or purple, rose or scarlet.

With these points stated, your correspondent with the modest name and I may, figuratively, shake hands, as they that agree to differ, although "He that complies against his will is of his own opinion still." As regards the classical "edged" Auricula, to which "Ignoramus" alludes, surely the single form of that flower is more graceful and winsome than the double, even as in the Snowdrop and Violet or the Daffodil and Tulip.

In the course of many years I have raised but one double Auricula and one striped, and they looked the "freaks" they were. Somehow, if I may use the ladylike expression, "it does not suit the face," to be, as it were, thus double-faced.

I think I can comprehend my unknown friend when he complains that there is but a limited variety in the florist's Auricula, because one fair visitor who saw my collection in full bloom declared that she saw "nothing but two varieties, the one plain and the other variegated." I grant this was an extreme case; but I may

venture to prophesy that if ever "Ignoramus" were to grow the Auricula he would come to know the class distinctions, the features of different varieties in any one class, and further, to identify a sort by the very habit of the plant at other than the flowering season.

I hope that your correspondent aforesaid has, in a great measure, misconstrued Mr. R. Dean's "advocacy of a more liberal taste in these charming flowers." It is possible to put a very ugly and retrograde construction on that much-abused word "liberal," and if Mr. R. Dean could possibly mean that "by a more liberal taste" we are to sanction the lowering of well-recognised and standard points in the Auricula, instead of striving to emphasise, raise, and fix them more, then would he earn anything but the sympathy and help of the Midland and Northern men.

The Auricula has, by long and loving care and efforts, been so patiently followed up and led on that the best varieties of threescore years ago are hardly, if at all, in circulation now.

It is largely so also with the English florist Tulip; while on the other hand, the old true gold-laced Polyanthus, in both the black ground and the red ground classes, is almost lost; there is no such quality as that of Lord Lincoln in black grounds, or anything to compare with Kingfisher in the reds.

Neither does there seem to be any specialist in the beautiful florist Ranunculus, of which George Lightbody of Falkirk and Carey Tyso of Wallingford were such noted raisers. I only see in some English and Continental bulb catalogues a few stragglers and remnants of the true types, such as Lightbody's Napier and Larne, and Kilgour's Queen and Incomparable. Sometimes they are only to be recognised amid a quantity of nameless "mixtures." The queen of all was the exquisite black Naxara, the only flower that ever was stolen, "root and stock," from my garden. I should know her anywhere, but she is extinct now!

FRANCIS D. HORNER, M.A., V.M.H.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

February 21.—Meeting of Sevenoaks Gardeners' Society.

February 24.—Lee and Blackheath Horticultural Society's Meeting.

March 1.—Sheffield Horticultural Society's Meeting.

March 4.—Meeting of the French Horticultural Society of London.

March 6.—Mansfield Horticultural Society's Meeting.

Prizes for gardeners.—We have received so many replies to the questions about trees and shrubs, published in THE GARDEN during January, that we have not yet been able to select the best. However, we hope shortly to publish the names of the four prize winners.

Evesham gardeners in Paris.—I have read with interest your article about the Evesham gardeners' visit to Paris, which appeared in THE GARDEN. The capital letter which appeared in *The Times*, written by the correspondent who was with the party during their stay in Paris, supplied you with thoroughly reliable details, but it has occurred to me that you might be glad to know of the origin and further continuance of the scheme. For some years past I have seen the advantages bound to accrue to Evesham from the introduction of French methods of cultivation, and of a greater variety of cultures in Evesham and the Vale. In November of 1904 I wrote a letter to the *Evesham Journal*, advocating the introduction of these newer methods of cultivation. This was followed by a meeting at Evesham, where I read

an address advocating what was set forth in the above-mentioned letter of mine, and, moreover, urging the market gardeners to go themselves to Paris and become personally acquainted with the French style of cultivation. I enclose some notes taken from the *Evesham Journal*, giving an account of that meeting. You may be further interested to know that the scheme thus started has so far borne fruit, in that I have been instrumental in procuring the services of a French gardener for Mr. Idiens of Evesham, who since his visit to Paris has decided to start a garden on the French model at his farm. The Frenchman arrived at Charing Cross on the 8th inst., and will remain at least two years, when it is hoped the French style of market gardening will be in full swing at Evesham and parts of the Vale. I thoroughly endorse your remarks as to manure being used too sparingly by some of our market growers. It was an eye-opener to see the enormous quantity of manure used by our French friends; indeed, the gardens were all manure.—C. D. MCKAY, 12, Tavistock Street, Covent Garden.

British Gardeners' Association.

In addition to those already reported, meetings have been held in the following towns: At Newport, Isle of Wight, on the 31st ult., under the auspices of the Isle of Wight Horticultural Association, the meeting being addressed by Mr. R. Hooper Pearson as a delegate from the British Gardeners' Association. It was resolved to form an Isle of Wight branch of the association, Mr. C. H. Snook of Westhill Gardens, Shanklin, being appointed local secretary. At Wylam-on-Tyne, on the 2nd inst., members from several local gardeners' societies attending. The meeting was addressed by Mr. W. Hall, Superintendent of Parks, &c., Sunderland, as a delegate from the association, and by some other Sunderland members of the association, their exposition of the benefits to be derived from co-operation meeting with a very cordial reception.

Clematis in Somersetshire.—In reply to the question by "Garnous" in your issue of the 28th ult., page x., I have no doubt that the Clematis is *C. Flammula*. There are some old plants on cottages in this village which receive very little attention in the way of training, &c., but are very beautiful when in bloom against the thatched roof. The scent from them can be detected for a long distance. It is a wonder that it is not used more. *C. Vitalba* grows luxuriantly in the hedgerows and woods about here. The soil is marly clay on limestone. GEORGE H. HEAD, *The Gardens, Kingsdon Manor, Taunton*.

Bearded Flag Irises.—Among the many beautiful forms of Bearded Flag Irises grown, those that constitute the section *I. pallida* stand in the foremost rank. Tall growing and handsome, they are effective for planting in groups in the shrubbery border or wild garden, while for display in June there is nothing to equal a broad mass of these plants situated on a sloping bank near water. Used for beds on the lawn, as in the illustration on page 104, with a background of trees, these plants form a charming picture with their numerous large and lovely flowers of various shades of colour. They are among the easiest of plants to grow; established clumps produce a large number of flower-stems, and keep up a succession of bloom for a considerable time. This section, which is a little later in flowering than the common purple German Iris, includes several varieties of different shades. One of the finest is *I. p. var. dalmatica*, which grows 3½ feet high, with broad foliage, and sweet-scented lavender-coloured flowers of large size. Equally tall, with soft blue standards, and soft lavender falls, is *Albert Victor*. Both these are robust-growing plants of stately habit. *Astarte* has rosy lilac standards, claret-red falls, and grows about 2 feet high. *Delicata* has grey standards and lavender falls on stems about 2½ feet high. One of the prettiest is *Queen of May*, which grows nearly 2½ feet

high, with flowers of a rosy lilac or almost pink shade. Once planted in good sandy loam, on almost any good garden soil, these Irises will produce an abundance of flowers annually for several years. When necessary to replant, the best time is just after they have finished flowering; this gives time for the plants to become established again before the following winter. Disease may be kept in check by spreading lime round about the rhizomes where it appears.—W. I.

Window flowers for London

houses.—The Earl of Meath, who, as president of the Metropolitan Gardens Association, has done much towards beautifying London, is offering money prizes to metropolitan flower-show committees who will include a window-box class in their catalogues. We understand that the Earl wishes to secure the formation of window gardens in the thousands of small and dismal streets which are too narrow to plant trees in. This will brighten the homes of the poor, give the people a healthy occupation, and beautify many miles of unsightly bricks and mortar. The scheme has been successfully tried in Battersea. A large estate has recently been laid out by the Borough Council, who themselves offered the prizes, and this encouraged people to brighten the outsides of their homes. It is to be hoped that numerous other parishes will take the idea up. They have had difficulty in the past in finding money, but that obstacle has now been overcome. There is much room for improvement in the richer parts of London, too.

New Pear Santa Claus.—I quite agree with "A. D.'s" remarks that it was peculiar to give the above Pear, which may not be new, a distinct award. Would it not be worth while to ascertain first what name it is grown under on the Continent? I am not at all sure that the name given is the best—of course that only concerns the exhibitor; but if the fruits are so good the name is by no means suitable, as it does not give one the impression of a really fine Pear. There is no want of varieties—there are too many; but the really good ones are few in number. The new fruit will be most useful if it gives a supply in January, a period of the year when Pears of good quality are not plentiful. It is surprising how long it takes to popularise a new Pear. This is not so with Apples, which are now so numerous that the fruit committee of the Royal Horticultural Society will need to exercise considerable care in giving awards if they require the novelties to be of the same standard as the varieties which are well known. The committee should also ascertain about cropping and growth.—S. M.

Planting out of Cinerarias.—I am forwarding a photograph of two Cineraria plants just to explain the planting out treatment which we find does very well with us here. We have had some good flowers from them since the early part of November from the treatment which I give below. Other plants such as *Salvias*, *Arums*, and *Solanums*, we plant out, and the Cinerarias in the same way. After sowing the seed early in March, and getting the seedlings strong in small pots and hardened off, when the weather is suitable we find a shady spot out of doors. When the soil has been got into good working order we turn our young plants out in the bed, at a suitable distance apart, keeping them well watered and shaded from bright sun through the summer. We usually lift them with a good ball in September, and they are then suitable to go generally in 8½-inch pots. We keep them well shaded in cold frames till the roots get in action again, and then we move them into rather a warm house in October. They very soon then begin to flower; we give a little stimulant when necessary, and continue to do so through the dull months of the year.—E. BARBER (gardener), *Buntor Gardens, Langley Avenue, Surbiton*. [A very interesting note. We wish the photograph had been suitable for reproduction.—Ed.]

The market show of Chrysanthemums.—It is proposed to continue this show of market Chrysanthemums on the same lines as before, and under the auspices of the National Chrysanthemum Society. That the committee have made a success of the venture financially is a gratifying fact, and to Mr. David Ingamels and his co-workers a large measure of this happy result is due.

Pentstemon barbatus Torreyii.—As the correspondent who described this Pentstemon as stated by Mr. Thatcher (page 37), I regret there is so much of it in commerce and so little of the true type—barbatus. This latter is a brilliant crimson, which, in a mass as advocated by Mr. Thatcher, is distinctly more effective than the variety. This plant appears to be so common now and of such easy culture that when ordering the true *P. barbatus* one generally receives the Torreyii form. It is disappointing to those who have known and grown the true barbatus for twenty-five years, and now have to be content with an "unattractive washed-out red" form.—E. M.

Romneya Coulterii and Ostrowskia magnifica.—The finest blooms I have seen of the Ostrowskia were on plants in Mr. Fitzherbert's garden at Cockington, near Torquay, before he moved from that part to his present home. In Messrs. R. Veitch and Sons' Exeter nurseries I have seen very fine flowers. There the plant had rambled over much space on a rockery when I saw it some years ago. The largest plants I know are in Lord Battersea's charming garden at Overstrand in Norfolk, close to the sea. I do not think they are protected during the winter. The site in which they are growing is sheltered by banks and trees somewhat. To see the plants as I have seen them there in August and September in bloom sets one thinking why specimens are not more common than they are in various parts of the country. Here at Swanmore I have failed to establish it successfully. It seems to require protection and a warmer soil. I have attempted to grow this plant at the foot of a south wall, but as soon as its roots got beyond the compost prepared for it into the natural cold, heavy, retentive soil the growth weakened. In this state it is not expected such a plant can exist long. I have several times planted the Ostrowskia, latterly at the foot of a warm southern wall in a prepared compost, mainly of peat and leaves, but I am sorry to say I cannot induce the plants to make growth.—E. M.

The Pyracantha at Byfleet.—As I happen to live within measurable distance of the Manor House and have known Mr. Allen for upwards of twenty years, I am aware that he planted and cared for the fine specimen described by me in a recent issue of THE GARDEN. I also know that Mr. Allen is a good gardener, and that he left the Manor House Gardens in a very different condition from what they were when he took to them. "B. S." knows full well, however, that the best fruit-bearing tree in the world can be spoiled in the course of a year or two if it comes into incompetent hands. Therefore we must in common justice give some credit to those who have cared for the tree that Mr. Allen formed. Frankly, I was not thinking of giving special praise to anyone in connexion with this tree. I simply mentioned that the present gardener pruned annually, because I know that diverse opinions exist as to the kind of training this handsome evergreen should get. Some advocate hard pruning, whilst some think that the best results are obtained when the growths are allowed considerable freedom. In my opinion it is a matter of soil and environment. I have in mind a big specimen that covered a wall and which was hard pruned annually, but the clusters of berries were few and far between. No fault could be found with the growth made, the wood being remarkably strong; but as a berry-bearing evergreen it was a failure. In the course of time the house changed hands, and the

new owner took no care of the Pyracantha. It was allowed to ramble at its own sweet will, the result being that it eventually formed a bush-like mass at the top and produced a big crop of berries. In this case the soil was rather heavy and the house was in a low-lying situation. Other instances of a similar character have come under my observation. In the matter of pruning one must, I think, be guided by circumstances. In a light, well-drained soil growth will be sturdier and the wood will ripen well, in which case hard pruning may be adopted. In richer ground what has been termed the extensive system may give the best results.—J. CORNHILL.

A note from Scotland.—Mr. Peter Barr writes from Kinn, N.B., on the 23rd ult.: "I have had the Turkish Snowdrop (*Galanthus Elwesii*) in flower for a fortnight, and the flowers are unaffected by the severe frost. The Scotch Snowdrop (*G. nivalis*) will not be in flower for one or may be two weeks. It is showing in the sheath, and some sun would no doubt command the blades to open and reveal the flower. I have about 10,000 Daffodil bulbs planted, some in long beds, and the rest under the turf. I manage the planting in the turf as follows: I peel it off and loosen the soil sufficiently to get the bulbs to stand erect. Then I replace the turf, tread well, and then beat it with the back of a spade. Several of the beds are filled with dwarf-growing Daffodils, such as *N. minimus*, *N. juncifolius*, and three of the beds contain 2,000 *N. cyclamineus*. Of course, this is quite an experiment, but the fact of the variety Queen of Spain having flowered remarkably well under the turf here for many years, and the bulbs when lifted were superb, leads me to suppose I shall succeed with the other collected bulbs. All of the 10,000, with a few exceptions, are collected bulbs."

Rainfall at Cole-Orton Hall, Ashby-de-la-Zouch, Leicestershire.—The following is a report of the rainfall for 1904:

Month.	Total depth.	Greatest fall in 24 hours.	Number of days with 41 or more recorded.
	Inches.	Depth.	Date.
January ..	2.65	.32	30 .. 21
February ..	4.08	.66	4 .. 21
March ..	1.97	.34	8 .. 16
April ..	1.20	.28	23 .. 15
May ..	1.30	.18	24 .. 15
June ..	.64	.24	25 .. 6
July ..	2.55	1.53	26 .. 8
August ..	3.90	1.45	23 .. 12
September ..	1.69	.61	3 .. 8
October ..	1.62	.86	1 .. 9
November ..	1.59	.39	10 .. 14
December ..	1.90	.28	14 .. 16
Total ..	25.09		161

Diameter of rain gauge, 5 inches; above ground, 1 foot; above sea level, 540 feet. The year was chiefly remarkable for the low rainfall during April, May, and June, when less than 3½ inches were recorded. February was the wettest month, with 4.08 inches, rain falling on twenty-one days.—H. WILSON, JUN., *The Gardens, Cole-Orton Hall.*

An early-flowering Rhododendron.—Time, in some instances at least, considerably modifies the awards of the Royal Horticultural Society, for on the day that a mere commendation was given to *Rhododendron præcox* a first-class certificate was bestowed upon the variegated-leaved form of *Agathæa cælestis*. This was as long ago as March 12, 1861, and now, while the last-named is almost forgotten, the *Rhododendron* remains a lasting monument to the memory of Mr. Isaac Davis of Ormskirk, its raiser, and in his day a most enthusiastic hybridist of this class of plants. To him we are also indebted for *Azalea Davisii*, *Rhododendron Davisii*, a cross between *R. javanicum* and *R. retusum*, and a beautiful sweet-scented class of greenhouse *Rhododendrons* obtained by the intercrossing of *R. Edgworthii* and *R. multiflorum*. The best known of these are Countess of Sefton, Countess of Derby, Duchess of Suther-

land, Lady Skelmersdale, and Mrs. J. Shaw. Concerning *R. præcox* it is now fairly well known as the result of crossing *R. dahuricum*, a native of the colder mountainous districts of Eastern Europe and Siberia, with the Himalayan *R. ciliatum*, which has proved to be one of the most useful of *Rhododendrons* to the hybridist, as it has played a part in the production of many of our best varieties. There is a considerable amount of variation to be found in the flowers of *R. præcox*, some being of a much deeper tint than others, no doubt the result of quantities of seedlings having been raised. The deepest coloured form is known as *R. præcox rubrum*. A second variety of this class, Early Gem, was raised in Messrs. Veitch's nursery at Coombe Wood, between *R. præcox* and *R. dahuricum*. This is a dwarf, compact-growing plant with rosy purple blossoms. Both are delightful for the embellishment of the greenhouse in early spring, or for sheltered spots out of doors later on.—T.

Iris stylosa.—There is considerable variation in the colour of *Iris stylosa*. In a large collection of a hundred or more plants, all held to be of the typical form, the colours range from pale lavender to the purple of the so-called variety entitled *speciosa*. I note that Mr. Caparne, writing of a new form of this *Iris*, states that "the type is seldom in bloom before Christmas." In South Devon the type commences to bloom at the end of October, and continues flowering until about the third week of March. For the last three years blossoms of *Iris stylosa* have been exhibited at the Torquay Chrysanthemum show held in the first week of November. The number of flowers produced by plants of this *Iris* during the winter season is well nigh incredible. As an instance, two plants are growing in a rockery, in pockets measuring 14 inches by 12 inches, which they have completely filled. Up to the 28th ult. they had borne 438 flowers, with a good seven weeks of their blooming season still to run. When this is completed I hope to communicate the result. Mr. Caparne gives the length of the stem as from 8 inches to 10 inches, but in South Devon the stems are usually from 12 inches to 16 inches in length.—S. W. FITZHERBERT.

Shows and garden competitions at Dunfermline, N.B.—At a meeting of the Dunfermline Carnegie Trust, held on the 26th ult., several questions relating to horticulture came up for consideration. Among others was that of the flower shows subsidised or arranged for by the trust's horticultural committee. This committee was authorised to arrange for three flower shows in the course of the present year, and also to conduct the usual competition for the best kept gardens, garden plots, and window boxes. The parks and property committee was also authorised to carry out the plans of Messrs. Backhouse and Son, York, for the treatment of the rocks on the Tower Hill.

Acacia leprosa.—Though unsuitable for growing into small flowering plants such as *Acacia armata*, *A. Drummondii*, *A. pulchella*, *A. ovata*, and others are, *A. leprosa*, given suitable conditions, forms a very handsome and graceful plant. Its loose habit of growth eminently fits it for covering pillars or columns in lofty greenhouses or conservatories, for once established it is of quick growth and will soon cover a considerable space. It is one of those species that bear no true leaves, but the phyllodes which take their place are exactly leaf-like and perform the same functions. They are about 3 inches in length, and seldom more than a quarter of an inch in width, narrowing towards each end. In colour they are of a deep shining green, a decidedly effective tint. The flowers, which are borne in great profusion, are, as in most of the *Acacias*, of a bright yellow colour. They are disposed in little globular heads. While this species is at its best when the slender, rather pendulous branches have plenty of space for their development, and yet not treated as a climber, the sulphur-tinted *Acacia riceana* is seen to great advantage trained

to the roof of a lofty structure. So treated the long strictly pendulous shoots clothed with needle-shaped leaves, and in their season wreathed in flowers, form a delightful feature. *Acacia leprosa* is, as the majority of *Acacias* are, a native of Australia, while *A. riceana* comes from Tasmania.—H. P.

Fitchia speciosa.—Mr. Gumbleton writes from Belgrove, Queenstown, Ireland: "I have just heard of the germination for the first time of seeds received here from the Cook Islands of a very beautiful composite *Fitchia speciosa*, with large, handsome flower-heads. This fine plant is not mentioned in the 'Index Kewensis' or in either of its supplements. I hope the seedlings will thrive and one day bloom."

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known.

We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, London.

THE WINTER SWEET.

A correspondent, who gives, unfortunately, neither address nor name, sends flowers of the Winter Sweet, with seed pods and seeds. *Chimonanthus fragrans* is this charming winter-flowering shrub, and Winter Sweet is the pretty English name, given in allusion to the spicy fragrance of the pale yellow flowers. It is a shrub for a sunny wall, where the flowering shoots can receive some protection when they are in full beauty. There is nothing tender about it, but no flower can remain unsullied in a season of frosts or cold rains. We give an illustration of the pod and seed, both natural size.

A SEEDLING CAMELLIA.

Mr. G. Taylor sends from Byram Gardens, Ferrybridge, flowers of a seedling *Camellia*, the result of a cross between *C. Donkelaarii* and *C. reticulata*, the latter being the pollen parent. The seed was sown in 1894, and the plant is now in the back border of a Peach house and covers a space 4 feet wide and 6 feet in height. The habit is more like that of *Donkelaarii*, not the straggling growth of *reticulata*. It flowers very freely, and is at the present time quite a picture of colour. The flowers are of a warm self crimson, and very striking.

GARRYA ELLIPTICA.

Messrs. Treseder and Co., The Nurseries, Truro, Cornwall, send sprays of this beautiful winter-flowering shrub. They write, "We have two very fine specimens, 10 feet high and 6 feet through."

A WINTER-FLOWERING RHODODENDRON.

"I think you may be interested to see a truss from a hardy *Rhododendron* which blooms here out of doors year by year in the depth of winter. Its main blooming time is December and January, but last year it opened its first flower in October and its last in May, and was never without some flower on it between those two dates. The truss, as you see, is small, but its good colour and the

time of year make it very welcome. In bad weather, of course, a good many flowers get spoilt, but there is always some weather in which they open quite in good condition. The truss I send was cut from the bush as I send it you; but in bad weather I find they open quite well in the house if cut when just showing colour. It was given me without a name from a friend's garden. I believe it to be a form of *R. arboreum*."—ANNE MARSHALL, *Skelwith Fold, Ambleside*.
[Yes.—Ed.]

THE STRAWBERRY TREE.

We are reminded of this pretty fruit by a boxful from Mr. G. S. Jordan, Bodorgan Gardens, Anglesey, North Wales, who also sends the following note: "I am sending a few fruiting pieces, for your table, of the Strawberry Tree (*Arbutus Unedo*). I cut them to-day (January 30) from a shrub growing quite in the shade of the pleasure grounds here, proving that this beautiful shrub will ripen its fruit in a shady place as well as in full sun. This shrub may be propagated by seeds sown in sandy peat in a cold frame in March, budding in July or inarching in April."

CHRYSANTHEMUMS IN EARLY FEBRUARY.

We have received from Mr. H. Wilson, jun., Cole Orton Hall Gardens, Ashby-de-la-Zouch, Leicestershire, flowers of two useful *Chrysanthemums* for winter—*Godfrey's King* and *Dorothy Pywell*, with the following note: "I send you a few flowers of *Godfrey's King* and *Dorothy Pywell* varieties for your table. Both are excellent late *Chrysanthemums*. *Godfrey's King* is very serviceable at the present time for table decoration, the rich bronze colouring showing well by artificial light, and is much admired. *Dorothy Pywell* is one of the best late whites I know. It is lighter in colour than *Princess*



THE WINTER SWEET (*CHIMONANTHUS FRAGRANS*).

(A) Pod. (B) Seed.

Victoria Chrysanthemum, and I have grown it for many years. We kept all our late *Chrysanthemums* outside as long as possible, and did not house them until the middle of November. The only protection was some thin tiffany."

THE ROSE GARDEN.

VALUABLE CREEPING ROSES.

ROSA WICHURAIANA AND ITS HYBRIDS.

THE above species was introduced from Japan about the year 1893. When planted in fairly good soil it makes rapid growth, sending out strong, trailing shoots from its base often 10 feet to 12 feet in length. These soon cover a bank or slope with a carpet of dense, glossy, almost evergreen foliage, on which the pure white flowers, borne on short branchlets the following year, are most effective. But, charming as the type is, its numerous progeny—the result of crosses between it and other *Roses*—leave it far behind. Fortunately they are, so far as my experience goes, absolutely hardy, and most of them retain their foliage well into the spring. Early varieties begin to flower in June, and the

later sorts continue the display until October. They can be used in so many different ways that there should be no difficulty in finding a place for them in most gardens. The prostrate nature of some of the varieties does not prevent their making the most of any support, whether natural or specially provided for them. For planting against a pergola they are especially suitable, as they soon cover it, and, having done this, their shoots do not grow upwards so stiffly and in such an ugly way as some of the *R. multiflora* section.

Perhaps there are no *Roses* so well suited for forming groups in the semi-wild garden. Here they may be allowed the freedom they seem to love, climbing over old stumps, threading their way upwards through coarse shrubs or small trees, and eventually festooning them with lovely blossoms. If the ground was well prepared when they were planted they need little attention; a top-dressing of manure and a judicious thinning out of the smaller sprays annually are sufficient. *Aphis* do not seem particularly fond of their hard, shining leaves, though it may sometimes be necessary to resort to *Quassia Extract* in the case of some of the softer-leaved hybrids. Nor do they seem to be troubled with mildew.

There is already a capital choice of colours among the hybrids and varieties. The French firm of M. Barbier et Cie have brought out several exceptionally good ones. Of yellows there are *Alberic Barbier*, *Jersey Beauty*, and *Gardenia*. The first is the result of a cross between *R. wichuraiana* and *Tea Rose Shirley Hibberd*. The foliage varies from bronze-red to deep green; the flowers are canary yellow, fading to a creamy white, the buds being of a deeper tint. It is an excellent *Rose* for buttonholes. The second and third owe their beautiful yellow tints to the parentage of *Perle des Jardins*. *L'Idéal* has also been used as a parent, producing *René André* in 1900, *François Foucard*, *Paul Transon*, and *Auguste Barbier* in 1901, and *Elisa Robichon* in 1902; the two last mentioned have flowers described as violet-lilac and rose-lilac respectively. Another happy combination has been that of *R. wichuraiana* and *Souvenir de Catherine Guillot*, producing some half a dozen varieties of beautiful colours—*Adelaide Moule* and *Edmond Proust* (1902), *Alexandre Trimouillet* and *Emile Fortépaule* (1903), and *Leontine Gervais* and *Valentin Beaulieu* in 1904.

Among the best dark varieties may be mentioned *R. wichuraiana rubra*, single (*R. wichuraiana* × *Crimson Rambler*). This flowers at the same time as the type, and its bright rosy red flowers form a good contrast to it; *Edmond Proust*, *Ferdinand Roussel*, and *Ruby Queen*, the latter of American origin. Others better known in England and of varying delicate pink shades are *Universal Favourite*, *South Orange Perfection*, and *May Queen*, doubles; *Pink Roamer*, single; and perhaps the most beautiful of all, *Dorothy Perkins*. The delicate shell-pink flowers are borne in large clusters, very double, and sweetly scented. Although it forces well, it is naturally rather late in flowering. Bought plants of *R. wichuraiana* and its hybrids are often to be found budded on the *Briar*, though why this should be is a puzzle, for cuttings strike very freely in the open during the autumn and spring months, and in a partially shaded place during the summer.

J. COMBER.

The Gardens, Nymans, Crawley, Sussex.

ROSE REVE D'OR AND TARRED STRING.

IN THE GARDEN of the 4th inst. there is a note from "S. W. F." on "Good Growth of *Rose Réve d'Or*." In it he says that the plant he mentions has all its long shoots bent carefully down and secured in position with tarred string. It may interest him to hear my experience of tarred string, which was used for the first time in my garden, and without my knowledge, four years ago. I noticed how beautifully all the wall and espalier *Roses* were trained in winter, and

they flourished until about July, when very one without exception died back to the first tie. On close investigation I found that as the string dried and the Rose grew they got "throttled," leaving a black mark. The strings were quite loose, but I fancy the tar after rain must have closed the pores of the bark, and so prevented the sap rising. I had to change my gardener before the next winter, and exactly the same thing happened with the new one. Is my experience unique? Last year we used reapers' binding twine, with good results. FRANCES J. SCOTT.
Burnside, Largs, N.B.

THE FLOWER GARDEN.

BORDER AURICULAS.

THESE handsome border plants frequently do not get the attention they deserve. They will thrive in most soils, and will do well on heavy ground if it is well drained. I have large clumps on a border of heavy soil which were planted some nine or ten years ago. They have had little attention since then beyond occasional lifting and dividing. They are easily raised from seed, and a good stock can soon be obtained by this means. Seed should be sown in early spring in pans of light soil of a sandy, porous nature. Cover the seed slightly with fine soil, and place sheets of glass over the pans and upon these sheets of paper. The pans should be watered previous to sowing the seed. The best situation for them is in a cool house or frame. Some of the seed will be a long time germinating, and patience must be exercised. On germination taking place the seedlings should be exposed to light and water carefully afforded. As they increase in size they may be pricked off into pots or pans, and finally from these into boxes, from which they may be transferred to the open border when large enough.

CHAS. JONES.

THE SWEET VIOLET.

(Continued from page 87.)

SUMMER CULTIVATION.

PLANTING should be carried out on a dry day and when the land is in a moderately dry condition. The ground should be well pressed round the roots of the young plants and the same well watered immediately afterwards. After planting is completed towards the end of April the method of culture to follow is very simple and easy to carry out. It consists of occasional waterings in hot weather, frequent hoeing between the plants to keep down weeds and cut away surplus runners when they become too numerous in order to concentrate the energies of the plant in developing strong crowns for the production of an abundant crop of fine flowers later on. Should the weather prove to be unusually dry and hot, a mulch of leaf-mould or short manure should be laid on the surface of the soil between the plants. Occasional heavy waterings over the mulching would be attended with great advantage.

WINTER TREATMENT.

Those who have the convenience of cold or slightly heated glass pits, or even portable glass frames, in which the plants can be wintered, should remove the plants to these positions towards the end of September or the beginning of October. Possibly these pits or

frames may have been used during the summer months for Melons or Cucumbers, if so, the same soil will do again for the Violets, additional soil being provided if necessary in order to bring the foliage of the Violet within 9 inches of the glass. The soil to be added should be of a poor nature, as this discourages the growth of further leaves in favour of a finer supply of flowers. The plant when dug from the ground for removal to the pits must have a solid mass of earth attached to it nearly as large as the plant itself, and the plants may be planted quite close together, as they will now make little leaf-growth, but should rather reward the grower with a splendid crop of flowers for many months. After planting remove the lights on all occasions when the weather is bright and warm or showery, and only protect from frost and stormy weather. They must not be forced by applying artificial heat with the object of forcing them prematurely into bloom. Those

flowers useful and effective for table decoration, as well as for the drawing-room.

Princess Beatrice.—This is another variety of great excellence, but is of a dwarfer habit of growth, and the flower-stalks are not so long as those of the former. This is chiefly valuable for its late flowering, the season extending to a later period than any other single variety that I know.

California.—This is an American variety of the same type as the above, but, in my opinion, not so vigorous or free.

Wellsiana.—This variety is of much smaller growth and having smaller flowers than those above mentioned, but it is a beautiful variety and well worth growing if only for its bronzy blue colour, reminding one somewhat of the red Violet of the Riviera (a variety which refuses to grow in England).

Double varieties are not so hardy as the single sorts, therefore some protection must be provided for them during hard frost, or



AURICULAS IN THE BORDER.

who have not the convenience of glass protection may still enjoy the pleasure of plucking these flowers for many months during autumn, winter, and spring by providing some sort of protection for the plants whilst in flower. This is easily effected by erecting a simple framework of any rough available light timber, fixing the same over the ground in which the Violets grow. Cover in hard weather with mats, straw, or any other warm material. The timber supports for this covering need not be above 15 inches above the ground.

VARIETIES.

These are numerous, but the selection given below will be found to include the best single varieties.

Princess of Wales.—This is, in my opinion, the best of all the single varieties. The flower is dark blue, very free, and very fragrant. The flowers are the size of a shilling, and the stalk is of great length. This makes the

they will be so much injured and weakened before spring as to be practically useless. The best of these are Marie Louise and Lady Hume Campbell. In colour it is blue-mauve, with a distinct white eye.

Lady H. Campbell.—This is a distinctly valuable late variety, flowering quite a month later than Marie Louise, and quite as beautiful and as fragrant. OWEN THOMAS.

(To be continued.)

NIGELLA MISS JEKYLL.

I HEAR great things of the new Nigella Miss Jekyll, one of Sutton's novelties for 1905, and raised by that clever lady. The old-fashioned variety of Love-in-a-Mist was fascinating in its unpretentious way, and we all loved it for its quaintness and the harmonious blending of the blue flowers with the green Fennel-like foliage; as cut flowers, too, it was charming arranged with Blanche Burpee Sweet Peas. The plant some few years ago attained the distinction of being

adopted as a "high art flower by the School of Art Needlework, and many designs were evolved from it, but lately it has been somewhat neglected. It sows itself freely, and has been treated with some of the scorn which pertains to the things that give no trouble to produce. A. DE L. L.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

THE MEZEREON.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—A note on this plant, on page 35 of THE GARDEN, says: "This Daphne finds favour with many nurserymen as a stock for the little evergreen spreading sort, D. Cneorum, for which purpose it answers well, stimulating a stronger growth than would be had on its own roots." Probably no greater mistake can be made than to graft an evergreen plant on a deciduous one, and it is because this has become a common practice with Daphnes that so many of the evergreen gems of this genus are so rarely met with. Two or three years is the most that an evergreen will last when on a deciduous stock, and then the cry goes up that the Daphne, or some other plant, will not grow in certain places, when failure is simply due to a "cheap and nasty" method of propagation. As long as the plant lives growth is more rapid on the stronger-growing stock than it is when the plant is on its own roots, but its life is very short. The evergreen D. blagayana, D. Cneorum, and D. oleoides can easily be propagated by cuttings or layers, the latter being an especially good and easy method of increasing them. It seems to be almost a mania with many people to graft anything and everything, irrespective of whether such a method is the best for the future well-being of the plant. Grafting should be the last resort when all other methods of propagation fail, and not, as is more often the case, be the first and only means employed.

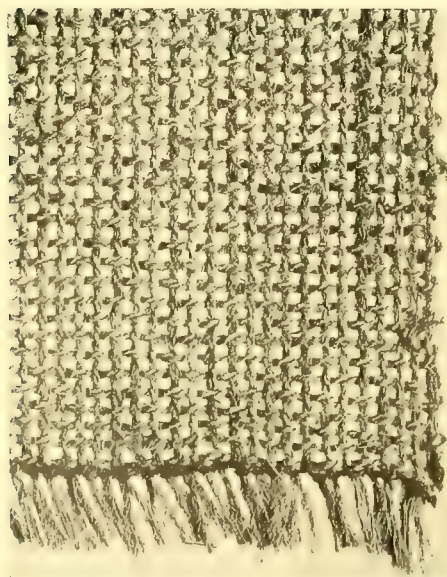
Bagshot, Surrey.

J. CLARK.

SHELTER FOR TENDER PLANTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have read with great interest an article which appears in THE GARDEN of the 21st ult.



A MAT FOR SHELTERING TENDER PLANTS.

relating to the shelter of tender plants. Various materials for protecting plants are mentioned in the article, and I venture to bring another under your notice. The mat I refer to is woven by our blind men, and I send you herewith a sample of it in order that you may put it to practical test yourself. You will notice that it is made of coir yarn, a material prepared from the outer covering of the Coconut. This fibre is extremely tough, and does not perish from the action of water, so that no matter how much it is exposed to the weather it is quite unaffected, even though it may be left for years. You will notice that the mat is so woven that the light and air can penetrate, but experience proves that it will resist a very severe frost. As an experiment I have had a rough garden frame constructed, and instead of using glass have used this matting, planting Calceolaria cuttings in the frame. I looked at these recently, and found that almost every one of the cuttings was alive, although the weather has been most trying in my garden of late. For placing over a frame that has glass lights I know of no mat to equal it, and it can be left on for days without being removed, as a large amount of light can penetrate it.

HENRY STAINSBY,

General Superintendent and Secretary of the General Institution for the Blind, Birmingham.

LESSONS FROM CHRYSANTHEMUM SHOWS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In your issue of the 7th ult. (page 13) your correspondent "A Reader" condemns the culture of Chrysanthemums for large or exhibition blooms in rather a wholesale fashion. I do not know if he has written as a gardener, or as an owner of a garden where a gardener is kept. I myself am not a gardener, neither am I in a position to keep one, but simply an amateur in a small way, having never grown more than fifty plants in one season, and recently less than twenty, with at least fairly successful results. I should be sorry to see the cultivation of this lovely autumn plant for the large blooms die out; in fact, I think all classes, even those fortunate enough to employ one or more gardeners, will be a long time before they arrive at a decision of that kind. Gardeners are, as "A Reader" observes, naturally influenced by shows in much the same manner as an artist is by an exhibition of pictures, and generally it will be found that some of the very best of them, in every sense of the word, are represented there, not so much for what can be gained in prizes, as for the pride in showing what thought, attention, and hard work can do.

In the first place, it is not necessary to have only one bloom to a plant, except with late struck plants of a limited number of varieties, such as Mrs. H. Weeks for example, and even then three plants can be grown in a 10-inch or 12-inch pot; there has naturally to be something in the nature of a recipe (we will take that word in this case to mean stopping or timing) to get a perfect bloom of a given variety, or some of the most beautiful sorts would not be grown. In using the word perfect I refer to colour as well as size. A well-grown Japanese bloom requires no dressing whatever. Some of the incurved Japanese are, I know, manipulated by some growers, but, personally, I prefer varieties such as Mrs. Barkley and W. R. Church, two that are sometimes treated in this way, to be shown naturally. Is there no other use for the large blooms but the exhibition table? Do they not look most effective when placed in a conservatory between Palms, &c., and for large vases in rooms? I think your correspondent cannot have visited places like Battersea Park in the season and heard the admiration expressed by thousands, who are not experts, at the fine blooms grown on the exhibition principle.

As to naturally grown plants, I take it that it is intended to convey the meaning that a plant



LILIAM PYRENAICUM IN A LONDON GARDEN.

should be grown without disbudding in any way. Surely if the market growers could afford to pay for the time to disbud, the resulting flowers would be even more attractive than they are when all buds are left, as the beauty of each individual bloom cannot be seen when three or four are crammed together on one stem. I quite agree as to the old severely trained specimen plants, but with specimens such as are shown on page 43 of THE GARDEN of the 21st ult. I think everyone will agree that they are better, either as plants or for cut flowers, than those generally grown for market. There are, of course, some exceptions that lend themselves to natural growth, but they are few in number compared to those that are improved by assisting Nature a little.

I will leave it to the gardeners to reply to the question as far as it concerns them, but the man who did not study his employer's wishes or ideas would be wanting in common-sense, and I am convinced that where there is room for a gardener to be kept there is also the opportunity to grow the Chrysanthemum in the many different forms, from one bloom in a 3-inch pot, or four to five in a 5-inch pot, to the orthodox three blooms on a plant for exhibition.

West Wimbledon.

J. BROWN.

LILIAM PYRENAICUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I send you a photograph of a group of L. pyrenaicum. I collected the bulbs some years ago; they do well with me, seeding everywhere. The only objection to the flowers is their rather strong scent.

Streatham.

ARTHUR SHILLITOE.

YELLOW-FLESH POTATOES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I note with much interest the remarks of "A. D." on this subject. Three years ago, after fruitless enquiries among seedsmen, &c., I discovered in an obscure village fairly good samples of the old Lemon Kidney, and obtained a few crosses, which are now being developed—not by "express propagation!" Its shape is not an ideal one, but the nutty flavour is there. In 1901 and 1903 I obtained blooms, with infinite trouble,

on the old Red Regent, introduced just a century ago. This variety is not now, probably, in the hands of half-a-dozen persons in the United Kingdom, but its fine flavour is fresh in the memory of a few old stagers. The crosses obtained were promising, but several, from both 1902 and 1903 sowings, became the prey of frost and rats. A few tubers of one, a fine russetted white oval, still exist, and will be guarded. In 1904 I obtained Early Shaw (Chave), another old favourite yellow-flesh of prime flavour, from Messrs. Vilmorin, and succeeded in obtaining two Apples—cross-fertilised, of course. Hope to make further trials this year.

Leicester.

EZRA MILES.

[In a letter enclosed with this note Mr. Miles writes: "I should like to meet with Lapstone Kidney, and if possible some representative of the excellent 'Fluke.'" Perhaps some reader can help our correspondent.—Ed.]

ILICIIUM ANISATUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—From the remarks on this charming shrub in his "Riviera Notes" Mr. Woodall appears to think that it is unknown in Cornwall. This is not the case, for although it is not generally grown, I am acquainted with good specimens in that county that are very ornamental when bearing their ivory-white flowers. It is perhaps more generally known under the name of I. religiosum, and appears far harder than many shrubs that are grown in the open in the south-west. I have also met with the tenderer I. floridanum, which bears maroon-red flowers, but this lacks much of the attractiveness of its Japanese relative.

S. W. FITZHERBERT.

POTATOES AND THE ROYAL HORTICULTURAL SOCIETY'S TRIALS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—On page 35 there is a useful note from "A. D.," and I hope the good advice there given will be acted upon by the Royal Horticultural Society, who, though they may not be able to find room for a large trial of new Potatoes, could readily grow a dozen by the side of the best old sorts. Last season I was sadly disappointed with three new varieties that have been so much praised. I intend giving another thorough trial, for in diverse soil it is patent to all Potato growers that some sorts will not do well, and it is not fair to condemn them, but it is not profitable to grow such Potatoes if the soil is not suitable. Last year in a favourable season one variety which was to beat all others was so badly diseased that I should not think of growing it again, but I should like to see this same variety grown at Wisley in land that has not had Potatoes before, or at least for many years. It will, I think, prove that some of our older varieties are not inferior to the new ones. By this I do not mean that the older Potatoes are all good, or that there is no room for new ones. Certainly not; but I have grave doubts about all the new ones, some of them at least are so invaluable that they will oust all others. Those who have grown Potatoes for many years know too well how some degenerate and the need of new blood, but I very much doubt if the wholesale introduction of new sorts which has taken place of late years will in the end prove satisfactory to the consumer, as some of the Potatoes as regards flavour have never been tested. "A. D." will agree with me that flavour was one of the most important points, no matter how good the crop. If it lacked quality it was passed. I note that there have already been trials at Wisley, and the results are made the most of by the raisers, so that it is evident the land will prove suitable. As the trials may for some years take place each year on diverse ground, owing to its being larger and not open to the cool influences that surrounded the

old gardens, these trials will be valued by those who consider good flavour an important point in vegetables.

S. M.

COSMOS AS A POT PLANT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I enclose you a photograph of *Cosmos bipinnatus* in pots; it was taken on December 21. In order to get the plants to flower at that date the seed should be sown about the middle of March in a warm house. As soon as the first cut leaf shows the pan or box should be moved to a cooler house, as too much heat causes them to grow long and thin. When large enough put one or two plants in a small pot. When the pots are nicely filled with roots move them into 4-inch pots, and this should be done about the middle of May. By that time they could stand in a cold frame. About the third week in June move them into 9½-inch pots, and stand in any good open space, such as with the *Chrysanthemums*. The same kind of soil used for the *Chrysanthemums* would suit them best. Pot them 3 inches below the rim of the pot, to allow for a good top-dressing. As soon as they begin to take hold of the new soil nip out the tops of each plant, and about the first week in August the top-dressing may be given. The best mixture for this is old hot-bed and burnt soil. As the roots begin to start in the fresh soil nip out the tops of all the shoots for the last time, and this will give plants about 3 feet through and 5 feet



COSMOS BIPINNATUS IN POTS.

high by the time they are in full flower. This treatment brings them well into flower at Christmas, when as a rule more colour is wanted in the conservatory and house. The flowers last well in water when cut.

C. OAKFORD.

Crofton House Gardens, Titchfield, Hants.

THE BEST APPLES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Any selection of varieties of Apples must of necessity be open to criticism, and, all the more, that the introduction of new varieties makes a possible selection wider every year. Selections of varieties as usually given are of very little real service unless, perhaps, to beginners in their cultivation, and they, as a rule, would do well to rely upon the advice of growers in their own neighbourhood. What would be of service to growers generally, and particularly to growers other than commercial, is a classification of Apples. It is surprising that the urgent need of this is not recognised. I am aware of the difficulties, practical and theoretical. It is well known to all experienced cultivators that to take certain varieties as typical of a race or class, and then group under the heading of that variety all with any definite affinity to it, is the only method of classification a practical cultivator would really think of. Such would reduce the present chaos of names now before the public to something comprehensible, and would be much more interesting than the usual desultory notes on individual varieties, useful though they some-

times are. Such a classification as I describe could be given at first briefly and tentatively, and improved or added to as time went on.

Nothing is more striking than the way in which writers on Apples at present ignore meritorious newer varieties, and recommend obsolete. Thus we have this week White Juneating as an early dessert, a variety nearly forgotten by good cultivators, although it is not so good as Red Juneating. Early Harvest is little better, and Gladstone is by no means prolific as a rule as a young tree. How seldom do we see Frogmore Prolific recommended! I have grown it on wet clay and light loam, and never found it otherwise than a regular and prolific cropper, with a free, strong habit, but not rampant. Though usually classed as culinary, it is superior by far to those generally found in that category.

J. A. NOTMAN.

Hurstcot, Wigmore, Chatham.

ROUND ABOUT A GARDEN.

SPRING FEVER IN FEBRUARY.

WITH February comes the time when love of a garden becomes a passion. Cold winds may blow and frosts may come again; but, even if the ground should be draped in snow for days together, nothing will undo the fact that evidences of the coming spring are already plain on every side, while each hour of sunlight adds something to their cumulative effect. So, though we may never literally accept the April poet's invitation to "dance with the Daffodils," we shall all be in dancing spirit by the time they open their wide frills of primrose and gold; and a long procession of early flowers will fill our garden nooks with glimpses of the pageantry of spring before the Daffodils are flowering in full beauty, as we can see by the fat, bud-enclosing spikes of green which are everywhere thrusting themselves up in clumps and clusters through the soft brown earth and lengthening every day. Winter Aconite, Snowdrop, and the earliest Irises are only the small advance guard of a force of dainty skirmishers which will occupy each sheltered nook and hold it against the worst that March winds can do.

ONE TOUCH OF NATURE.

Perhaps it is because the happy feeling, that attunes our thoughts to Nature's joy in spring, dates from the immemorial time when man also was a wild child of Nature, that we unconsciously value the common wild flowers of the coppice more at this season than the best and earliest of a garden's choice exotics. We may take proper pride and pleasure in possession of lovely February-blooming shrubs of Japan or Africa; but it is to the woodbine's tender green leaves, the swelling buds of the common weedy Sycamore, or the ruddy tint which is creeping over the Hawthorn hedges that we look with real confidence of coming change for the better. The few wild Primroses peeping in the shrubbery seem sweeter in the very early year than the best of garden flowers; and the pale clustered buds of the Holly-leaved Barberry in the coverts seem to carry richer promise of the coming of golden summer, simply because they fringe the woodland paths where wild Nature is awakening from winter sleep.

EVEN THE SPARROW PLEASES.

The same touch of Nature which makes the whole world kin when spring begins to move makes us much more sympathetically

observant of the ways of the birds. Even the sparrow, carrying a premature straw to the water-pipe in the first days of February, becomes a happy landmark of the year; and the very babel of sparrows' voices which comes in through the window, flung open in the early morning, has a silvery ring to ears which are longing to forget the silence of dull winter days. And everyone who owns a garden will admit that something peculiar must be happening when one can take pleasure in the proceedings of a multitude of sparrows. Even recollections of tattered Primroses and Crocuses, wastefully flung aside, cannot impair one's joy on learning from the hubbub of the sparrows that nesting-time draws near again.

DAINTIER COUPLES.

And in every part of the garden the same message is being whispered or shouted to us in the sweeter tones of many daintier birds. The great tit's ringing notes echo from the

cannot help wondering every time that so much music should come from so small a singer.

FEBRUARY SONGSTERS.

From his corner tree the missel thrush is flinging his bold message over and over again across the outer field in answer to that other missel thrush whose challenge you can faintly hear at intervals; and in a secluded clump of evergreens a song thrush is rehearsing all the varied phrases of his spring music, already very different from the *sotto voce* monologue which you heard now and then in autumn and winter. But most of all, perhaps, in early February you rejoice to recognise again the jovial refrain of the pink-breasted cock chaffinch, not because it is particularly musical, but because it is always associated in one's mind with the sunny days of real spring, when almost every tree seems to hold its singing chaffinch, and the very air vibrates to the simple chorus.

Even for robins, however, the fewer eggs that are laid in February, or even March, the better; so, though we cannot help the impatience of hope which always accompanies spring fever in the mind, our proper wish should be for plenty of cold weather during the next six weeks at least, rather than for premature warmth, which may fill our gardens with early flowers, but would surely tempt Nature at large into disaster later.

E. K. R.

NOTES ON HARDY PLANTS.

THE FLAG IRISES.

Few plants produce a more beautiful and effective display when massed than the Flag Irises. There are now so many lovely varieties, and they are comparatively easily grown, that the wonder is they are not more popular. It is true that one sees plenty of the common Flag (*Iris germanica*) in gardens, but what of many other beautiful forms that may be obtained. The Iris garden at Kew is a perfect picture when the flowers are at their best, as the illustration well shows. Kew has its share of smoke and fog, neither of which, however, seems to affect the Flag Irises. In town gardens they are most valuable. Neither do they require any special soil or position; in fact, they could not well be more accommodating. The Iris shown in the foreground of the illustration is *pallida dalmatica*, perhaps the most beautiful of all, with tall stems carrying delicate blue, sweetly-scented flowers, and having broad, handsome foliage. Although planting is best done after the flowering season is over, it is not yet too late. The display this season would not be so good as from plants put in last year, of course, but it is advisable to plant late rather than not to plant at all.

DOUBLE DAISIES FROM SEED.

THE experience of "A. D." in raising desirable forms of double Daisies from seed differs from mine. The plants grow freely and flower abundantly, but what are the quality of the blossoms I would ask? Not one in fifty is worth perpetuating, 90 per cent. are semi-double, while the colours are so variable that one cannot depend upon them for bedding. Friends who have tried them and who wish to have Daisies have gone back to the old plan of securing a stock of colours required and by treating them as perennials. The seed was procured from apparently the best houses.

E. M.

COLCHICUM MONTANUM VAR. RITCHII.

THIS pretty form of *Colchicum montanum* came into bloom with me this year just with the opening days of January, and its first flowers would have lasted in beauty for some time had it not been for slugs. It has been here for several years, and, despite the early season at which it blooms, is



IRIS PALLIDA DALMATICA IN THE ROYAL GARDENS, KEW.

shrubby through every hour of morning sunshine in February, and little pairs of blue tits precede you, calling to each other in shrill quavering notes of fussy anxiety for each other's safety. Presently both together will scold you whenever you venture that way, because they will have a great secret to keep from you, connected with the nesting-box which you have nailed upon the old Apple tree.

Pleasanter even than the little tits are the newly-married wrens, who follow-my-leader through the undergrowth, close beside your steps, the tiny male bird now jarring in protest against your trespassing in his private part of your shrubbery, and then popping up to the top of some low bush and, with tail cocked up till it nearly touches the back of his head, abruptly pours out a strain so sudden, sweet, and loud that you

Only the robin strikes you as more silent than usual in early February, though if you listen you will hear one or two in fine song in corners of the garden. But what has happened to the rest of them? They are not only silent, but their usual beats are deserted. There is no need, however, to lament the apparent loss, for as spring approaches the female robins—who have spent the winter on separate beats of their own, singing and fighting, as opportunity offered, to maintain their individual rights—willingly forego independence, and for many months will be content to live the quiet, trustful life of happy wives. It is seldom long, too, after you have noticed the change which has come over your garden robins before you discover a robin's nest in some quaint place, with the female robin gazing placidly out at you, as she dutifully covers her early treasures.



COTONEASTER ANGUSTIFOLIA



generally very satisfactory when it escapes the slugs, which are so abundant, and which cannot be warded off everything even by the useful notched zinc ring. It is recognised by Mr. J. G. Baker as a form of *C. montanum* with crested filaments, and it is a useful little Meadow Saffron with smallish pale purple flowers, which are produced in succession. The leaves appear with the flowers, ultimately extending until they reach their full size in summer. Like most of the other Meadow Saffrons, *C. Ritchii* likes a fairly heavy soil, and increases better in such than in a poorer one, although it grows and flowers quite satisfactorily enough in a light one. Although not to be met with in every catalogue, this Meadow Saffron is sold by some of the British bulb dealers, from whom corms can be procured in autumn. It should be planted with the crown about 3 inches deep. S. AENOTT.

Carsethorn, by Dumfries, Scotland.

COLOURED PLATE.

PLATE 1268.

COTONEASTER ANGUSTIFOLIA.

THIS is the most promising ornamental berry-bearing shrub that has been introduced to cultivation in recent years. It has been in the Kew collection since 1899, having been sent there by Lieutenant Jones with other Chinese seeds. It came prominently before the public for the first time, however, on November 29 last, when it was exhibited at the Royal Horticultural Hall, Vincent Square, by M. de Vilmorin. The sprays that he sent were thickly crowded with bright orange-coloured berries, and were as strikingly ornamental as a *Cratægus Pyracantha* or a *Sea Buckthorn* at its best. It

FLOWER OF THE NEW

CYPRIPEDIUM.

(NATURAL SIZE.)

fully deserved the first-class certificate that was awarded it by the floral committee.

This species is a native of China, and comes from the province of Yunnan, whence so many plants have reached us during the last decade. It was discovered by the Abbé Delavay, and was first named and described by the late M. Franchet. To M. de Vilmorin belongs the credit of having first raised it in Europe, and the largest plants now in cultivation have been raised by him. The firm of which he is a member are now offering seeds of it in their catalogue for the present year. In July last I paid a visit to the fruticetum that M. Maurice de Vilmorin is forming at Les Barres in France. The original specimen of this *Cotoneaster* is growing there, and is now a fine bush some 6 feet or 8 feet high (to the best of my remembrance) and more in diameter. It is an evergreen; the habit is sturdy, the branches densely twiggy and very frequently growing horizontally. The leaves are very variable in size—from a quarter of an inch to 2 inches long, narrow, oblong, sparsely toothed, dark lustrous green above,

and covered with a white or greyish down beneath. This down is much whiter and more abundant in M. de Vilmorin's old plant than it is on our young ones. The short side shoots on last year's branches are tipped with spines.

When I saw the bush at Les Barres in July it bore an extraordinary profusion of fruits. They were then covered with the grey down, but in the autumn they turn the bright orange-yellow seen in the specimens exhibited at Vincent Square. According to M. de Vilmorin, they retain their colour all the winter. In all probability the species is as hardy as *Cratægus Pyracantha*, and, should it bear its fruits as freely (or nearly as freely) in Britain as it does in France, it will do more to brighten our gardens in autumn and winter than any other shrub of its kind lately introduced.

W. J. BEAN.

NEW AND RARE PLANTS.

A NEW CYPRIPEDIUM.

NEW *Cypripediums* are by no means uncommon, and it may truthfully be said that some of them are a good deal like already existing ones. The one we illustrate, however, is quite distinct and a remarkable flower. It is a variety of *C. leeanum* called *J. Gurney Fowler*. The dorsal sepal, as may be seen, is as broad as long; it is white, except for a green tinge at the base and a line of crimson dots down the centre. The petals, which have curled margins, are green, marked with dull purple;



THE NEW CYPRIPEDIUM AS SHOWN AT THE ROYAL HORTICULTURAL SOCIETY'S MEETING ON JANUARY 24.

the lip is large and broad, dull purple, with green margin. It was shown by Messrs. Sander and Sons, St. Albans, before the Royal Horticultural Society on the 24th ult., and received a first-class certificate from the Orchid committee.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

PRUNING ROSES.—The time for pruning generally is not yet, but where Roses are growing on a south wall with a good coping the pruning may be done now to ensure a supply of early flowers. Thin out all weakly shoots, but lay in all strong shoots nearly full length. Weak shoots which do not flower are in the way, and we want to encourage strong growths to break away near the bottom to keep the wall filled up. Half a dozen good wall Roses are Gloire de Dijon, W. A. Richardson, Belle Lyonaise, Climbing Perle des Jardins, Reine Marie Henriette, and Reine Olga de Wurtemberg.

Six Roses for Arches.—Crimson Rambler, Félicité Perpétue, W. A. Richardson, Aimee Vibert, Longworth Rambler, and Aglaia. There is plenty of scope in most gardens for more arches and pillars of Roses. I prefer each arch to be of one kind of Rose only, but in addition, as these rambling Roses are apt to get naked at the bottom, to fill in at the base with China Roses, such as Laurette Messimy, Duke of York, Mme. E. Resal, Queen Mab, Fellenberg, and the old-fashioned Monthly. The site should be well deepened and manured.

Some Technical Terms.—Beginners, when told to stop a plant or to pinch it, are often puzzled to know what is meant. It simply means when a young plant is growing freely to take out the terminal bud of each shoot, so as to cause other shoots to break out lower. Any plant growing freely may be treated in this way to make it bushy and increase the number of its flower-heads or spikes. It is not considered good practice to stop or pinch a plant when re-potting, but wait till the roots have become active or pinch a fortnight or so before. Pricking off or "pricking out," as it is termed, is generally applied to young seedling plants, and means transplanting from the seed-pots or boxes to others at wider intervals to give strength and increase the number of the roots. Another form of the same term is "potting off," which is done when the little plants are taken from cutting-pots or seed-boxes and placed simply in small pots to give them an independent existence.

Shifting on a Plant.—In the phraseology of the potting shed, giving a plant a shift means transferring it to another pot usually of a larger size. In the growth of a plant from a seed or cutting there will be a series of shifts, the pots gradually increasing in size to meet the needs of the plant. Thus in the case of a Chrysanthemum—say, for instance—we may start the cutting in what is termed a "thumb" pot, and in about four shifts it will finish its career in an 8-inch or 9-inch pot.

Pruning Red and White Currants.—With these a different course is adopted, as the bushes bear so freely on spurs from 1 inch to 2 inches long and the fruit is finer when the young wood is checked. Therefore spur-pruning with these fruits is best, but a young shoot may be left to fill up a vacancy where required. The best form of bush is what may be termed basin shape, i.e., a hollow centre with the branches arranged in whorls round at regular distances apart, the contour or balance being properly maintained.

Pruning Black Currants.—The Black Currant bears on the young wood, and the pruning should be directed to provide a good supply of short-jointed young shoots, taking out an old branch where necessary to more fully attain that object.

No open centre is required. We simply want to create a bush some 4 feet or 5 feet through with the branches disposed at equal distances apart in a well-balanced condition. Very little shortening is necessary beyond what may be required to maintain symmetry.

Sprouting Potatoes before Planting.—The best way of sprouting Potatoes ready for planting is to place them, crown upwards, in shallow trays or boxes in a light frost-proof building. This, if not already done, should be seen to at once. The best eyes are on the crown, and the central one in this way will develop a sturdy green shoot half an inch or so long. When in that condition it is ready for planting. Potatoes even now, when more attention is given to their culture, are seldom given room enough to do their best. To prove this we have only to note the crop produced by outside rows in any given plot. The best manures for Potatoes are those containing a preponderance of phosphates and potash. If the land is poor and nitrogenous manures are used to finish off the crop, scatter nitrate of soda alongside the rows, just previous to earthing up, at the rate of 3lb. per square rod. The hoe should follow the manure distributor immediately. The rows of strong-growing Potatoes should be 3 feet apart, and the sets in the rows 16 inches from each other. The depth of covering should be from 4 inches to 6 inches, according to the nature of the soil.

Lettuces under Glass.—Hitherto the French Lettuces in spring have monopolised our markets, but the English growers are waking up, and will adopt and probably improve upon French methods. In many English private gardens glass-grown spring Lettuces may be had. Where early Asparagus is forced, the beds after the Asparagus is cleared off come in well for Lettuces, or slight hot-beds could be made for them and covered with frames. A trench filled with warm manure and covered with cheap frames would produce good Lettuces.

Edgings of Pinks in the Garden.—These are very sweet in cottage gardens in the country when planted as edgings round borders or alongside walks. If old plants are pulled to pieces in September, each piece retaining a bit of old stem, and dibbled in prepared ground somewhat thickly, they will soon form a good edging that will flower abundantly the following summer and fill the garden with their fragrance. There is a race of perpetual Pinks of various colouring being introduced that will be valuable.

Early Tomatoes.—For the earliest crop under glass Comet, Holmes's Supreme, and Early Ruby are good. The last has a little of the Old Red blood in it, but the fruits are only very slightly wrinkled. All these set freely, ripen early, and do well in pots or where the root-space is very limited. It is not much use starting unless there is a night temperature of not less than 60° for raising the plants, as those starved are generally more or less failures, but with plenty of warmth they move rapidly. Sow the seeds very thinly in pots or boxes, and grow on without check.

Some Sweet Peas.—One, perhaps the chief, reason for their increased popularity is the large use that is made of them for table decorations. There is no other flower which is suitable for the purpose that can be so easily grown and is capable of giving such a long succession of bloom. Improved culture and better varieties

have increased their popularity. To get fine flowers they must have plenty of room, and be well nourished with both solid and liquid manures.

Sweet Peas: Good Varieties.—There are far too many varieties in the seed-lists, and a beginner is puzzled to make a selection. For cutting we want distinct colours, and I have kept this in view in making the following selection: Gladys Unwin, pink; Dorothy Eckford, white; Bolton's Pink (good); Miss Willmott, orange; Black Knight; Mr. Walter Wright, blue; King Edward VII., crimson; Mr. E. Kenyon, yellow; Scarlet Gem; Mrs. Eckford, primrose; Navy Blue; Emily Eckford, mauve; Lord Kenyon, rose; and Mont Blanc, white.

Koniga maritima.—This neat, dwarf, white-flowered plant is being used a good deal as an edging and carpeting plant. It hugs the ground closely, and forms a dense, low growth which is covered with small white flowers. These come in succession all the summer. It may be easily propagated from cuttings under glass. An ideal bed may be obtained by using this as a carpet beneath the purple-leaved Lobelia Queen Victoria.

Change of Position.—Plants in pots in the greenhouse or in windows in the dwelling-house should be often moved, so as to bring all their parts under full exposure to sunshine and light. This keeps the growth equal on all sides. In the conservatory frequent rearrangements should take place, bringing the best specimens into prominent positions. This gives an opportunity to move the plants whose blossoms have faded to another house and fill up with others from the forcing house.

Sub-tropical Plants for the Garden.—For the purpose of the outside garden many of these may be raised from seeds in heat during February, and will include Castor Oil Plants, especially the bronzed-leaved variety Gibsoni. The variegated Maize may be sown later, as it grows quickly. Acacia lopantha, Grevillea robusta, Fernandia emineus, various kinds of Solanums, including the variegated form (S. marginata) and robusta (the red-spined variety). Indian Shot or Cannas may be raised from seeds in strong heat, but the seeds should be soaked for twenty-four hours in warm water before sowing.

Clothing Bare Spots Under Trees.—Bare earth is always objectionable, and there are not many things that will thrive beneath heavy-foliaged trees. The Horse Chestnut is the worst I have had to deal with, and the only plant which really seems happy in such a position is the small-leaved Ivy. The best is the common Ivy, which grows wild in the woods. Caenwoodiana, a small, neat-leaved variety, is also a success, as it clings to the ground and sends out roots at every joint. If small bulbs, such as Aconites and Snowdrops, are planted freely among the Ivy the effect in early spring is very good.

Old Apple Trees.—We are a conservative people, and set a sentimental value upon old trees and ancient buildings, but when it becomes a question of meeting foreign competition the old trees must go. The beginner must guard against planting too many varieties. No one who has a warm, deep soil will regret planting Cox's Orange Pippin in quantity, and there is no better late dessert Apple from this on to April than Lord Burghley.

E. H.

GARDENING OF THE WEEK.

FLOWER GARDEN.

VARIOUS SEEDS must now be sown in heat. Plants used for sub-tropical effect, and dot plants in carpet bedding, generally have to be grown into a good size, and hardened off by planting-out time, so they should be sown first. The beautiful and useful *Kochia scoparia* is a splendid plant for such purposes, quickly forming pyramids of delicate green during summer, and changing to a lovely bronze in early autumn—quite an acquisition.

WATERING SEEDS until germination and the formation of the rough leaf, especially minute ones with little or no soil or sand covering them, must be done with extreme care, so as not to wash away the seeds or cause the delicate seedlings to decay. We have dispensed altogether with the fine rose watering-can in these cases, but instead plunge pots, pans, or boxes in a tub of water to within an inch or so of the rims, so that the water level is just below the surface of the soil. It is yet early enough to enter upon the general seed sowing in warmth, for comparatively late sowing and growing on without a check is much better than earlier sowing, and then having to crib and cramp the plants to their ultimate detriment.

CUTTINGS.—Insert cuttings of *Iresine*, *Alternantheras*, *Verbenas*, *Lobelias*, and all such soft-wooded plants, as fast as they are produced. Succulent cuttings of these do not require trimming to a joint; such would be waste of stock, for each joint will make a cutting and subsequently a plant. Strike in brisk moist heat.

BEDDING BEGONIA TUBERS may be placed in gentle heat to start. Spread thickly on a bed or in boxes, syringe freely, and as each tuber breaks into growth pot or put in boxes in light leafy material. Bring the planting of deciduous trees and shrubs to a close as early as possible, and defer further work of this kind until October (excepting, of course, unavoidable arrears that must be completed). Complete the work by a thorough watering, efficient staking, and a good mulch. Most.

EVERGREENS are as well left until later, the showers and sunshine of April being more favourable for their removal than the harsh winds of March. It sometimes happens after the winter clearance of Laurels and other common shrubs that a sunny sheltered spot is revealed suitable for a

ROSE BED. Should the soil be unsuitable provide fresh, the heavier for the stronger-growing bedders and Hybrid Perpetuals, and somewhat lighter for the more delicate Teas, thoroughly enriching it with manure or some good fertiliser. Trim the bruised and broken roots of the Roses, plant firmly, shorten the shoots, stake neatly, mulch with partly-decayed leaves, and affix permanent labels.

The Gardens, Tan-y-bwlch.

J. ROBERTS.

FRUIT GARDEN.

TYING AND TRAINING FRUIT TREES.—This work should not be further delayed, as the buds are now growing and there will be danger of damaging them; moreover, the shoots cannot be handled with the same freedom when the buds are prominent as before they commence to swell. In tying young trees see that the ties are not made tight. Another danger which must be averted is the main branches coming in contact with the wires. This is a common cause of canker, and likely to result in permanent injury to the trees. A thin piece of wood placed between the branch and wire will prevent this evil. In the case of nailing, do not drive the nails so near the branches as to injure them. This also is often the cause of canker.

PROTECTING FRUIT BLOSSOM.—The vagaries of our climate are such that it is necessary to have in readiness material for the protection of those crops which usually suffer first from the effects of late frost. It is a good plan to have blinds temporarily fixed, which may be drawn up and down as the case needs. A double thickness of fish netting hung over the trees will keep off several degrees of frost, and will also break the force of cold easterly winds. Spruce branches, Heather, or anything of a similar nature will answer the same purpose, and this should be at hand ready for immediate use.

GRAFTING.—The stocks on which it is proposed to graft other varieties should now be headed back. The clay should be prepared some time in advance of the operation, and be turned and thoroughly mixed at intervals of two or three days, so that it will be in perfect condition when required. Cow manure may be mixed with the clay to the extent of a third of the whole. This will prevent cracking and tend to keep the clay moist. Whip-grafting is the mode most generally adopted. It may be done at any time now when the weather is favourable. It should be done as neatly and expeditiously as possible.

STRAWBERRY PLANTATIONS.—If old plantations have become overcrowded they should be thinned, so that the remaining plants may have sufficient room to develop. The quarters should be then lightly forked over. A good dressing of rotten manure will give renewed vigour to exhausted plants. If it is intended to make new plantations, no time should be lost in preparing the ground, which should be deeply trenched and enriched with rotten manure. The planting may be done as soon as the ground will permit.

CLEANING LATE VINES.—As the Grapes in late houses have to hang on the Vines for a much longer period than others, these should be thoroughly cleaned before coming into growth. If they are infested with mealy bug, all loose bark should be carefully removed and the rods well washed with a mixture of soft soap and sulphur, 2oz. each

to a gallon of hot water. This may be repeated just before the buds commence to break. Thoroughly clean all wood-work and glass, and lime-wash the walls. The trellis should be painted with paraffin.

Fruit Department, Royal Gardens, Windsor.

ORCHIDS.

COELOGYNES.—In almost every garden where Orchids are cultivated plants of the well-known *Coeogyne cristata* will now be in bloom. This very useful Orchid will succeed in almost any house where an intermediate temperature is maintained. It delights in a clear light, but not strong sunshine, when in full growth. Towards the completion of the new pseudo-bulbs it will enjoy direct sunshine; when grown too shady the spikes rarely carry more than four or five flowers each instead of six or seven. While the plants are in bloom see that the flowers are kept free from damp, otherwise they quickly become spotted. *C. lemoniana* is a variety of *C. cristata*, with lemon-coloured centre. It is a distinct and desirable variety, often producing eight or nine blooms on a spike. The pure white *C. c. hololeuca alba* is also a lovely variety; now that plants are so cheap and plentiful it should be represented in every collection, and especially where cut flowers are required in quantity. *C. c. lemoniana* and *C. c. hololeuca* come into bloom a few weeks later than *C. cristata*, thus prolonging the Coeogyne season. After these plants have done flowering place them in the coolest part of the house, and afford only just sufficient water at the root as will prevent the succulent bulbs from shrivelling. *C. barbata*, *C. rossiana*, *C. gardneriana*, *C. graminifolia*, *C. speciosa*, *C. corrugata*, *C. conferta*, *C. Veitchii*, *C. elata*, *C. pulchella*, and others which are commencing to grow may now be safely repotted should they require more root room. All of these species grow well in equal parts of fibrous peat and sphagnum moss, and, as none of them make a large quantity of roots, the pots or pans used should be small in comparison with the sizes of the plants. *C. tomentosa*, *C. dayana*, and *C. massangeana* are species with long racemes of flowers, and for these basket culture is preferable, as suspended from the roof their flowers are seen to the best advantage. *C. flaccida* should also be grown in a basket or shallow pan. This plant is now at rest, and should receive but little water at the root; if kept too damp during this period the plant will fail to bloom satisfactorily. An intermediate temperature will suit the whole of these Coeogyne admirably. *C. pandurata* and *C. asperata* Lowii, both hot-growing species, may be repotted after the flowers fade. Both are strong-growing plants, and very interesting when in bloom, but their size is against them where space is a consideration. Plants of the winter-blooming

ANGRECEM SESQUIPEDALE, **A. EBURNEUM**, and **A. PERTUSUM**, which have recently passed out of flower, are already commencing to push out their long fleshy roots. These should, if requisite, receive immediate attention by repotting or resurfacing. The potting material, treatment, &c., should in every respect be as advised in my last calendar for *Acerides*. In

THE CATTLEYA HOUSE plants of *Cattleya Trianae* and its many beautiful distinct varieties are either in bloom or fast pushing up their flower-buds, which, where a number of plants are cultivated, will make the house gay and attractive for some time to come. Those plants which are now pushing their flower-buds up through the sheaths should have a little extra water at the root, but when the blooms are fully expanded less will suffice. If kept too wet at the root the flowers soon lose their freshness, and the tips of the sepals quickly damp off. *C. lawrenceana* is also prominently showing its flower-buds in the sheath, and until the flowers open should receive rather more water at the root, and be elevated well up to the roof in the warmest part of the house. Plants of the two species of *Cattleyas* enumerated should, after the flowers fade, be kept fairly dry at the root, and may be repotted soon after growth commences.

Burford Gardens, Dorking.

W. H. WHITE.

KITCHEN GARDEN.

ASPARAGUS is one of the oldest and most delicately-flavoured vegetables. To grow Asparagus successfully plenty of space must be allowed, and the bed always kept free from weeds. Beds that were cleaned and mulched with manure in the autumn may now have the long straw manure raked off and cleared away; but unless in very exposed situations, and where the soil is of a light sandy nature, Asparagus is better without any winter covering. Mulchings of manure retain moisture, consequently the roots are injured by cold and growth retarded. The surface of the beds should now be lightly and carefully stirred up without disturbance to roots or crowns. With measuring rod and line make the beds and alleys square and trim. Beds that were top-dressed with wood ashes last spring will benefit by a dressing of basic slag now; another year it will be found very advantageous to have the same beds top-dressed with a different stimulant, as Asparagus, like many another thing, enjoys a change of food. To lengthen the season of this valuable vegetable, sturdy roots well furnished with crowns may now be introduced into a house with gentle bottom-heat and a surface temperature of about 60°. When the hot-bed appears dry moisten thoroughly with tepid water, and sprinkle slightly with sulphate of potash, and wash in with more tepid water. As light and air are very essential elements in the production of good Asparagus, it will be found at this season an easy matter to excite it into active growth, its flavour will also more nearly resemble that grown on the open bed.

CABBAGES that were sown last August and picked out into rows in September should now be ready for planting out in permanent quarters when the ground and weather

are favourable. Plant where a root crop, such as Onions, was previously grown, fork the ground lightly over to break it up where necessary, level the surface, mark off the rows from 20 inches to 24 inches apart, according to the variety and the richness of the soil, then draw out shallow drills with the hoe, and plant the Cabbages from 15 inches to 18 inches from plant to plant.

PARSLEY being always in demand an early sowing may now be made. In many gardens the cultivation of this useful herb is extremely simple, while in others it has been found difficult to maintain a moderate supply. Here I find it does best on ground that is not too damp and that has been well manured the previous year. Let the ground be lightly forked over and then trodden firmly as if for Onions. Before drawing out the rows, which should be 12 inches apart, sow the seed neither very thick nor very deep, and cover with fine soil. Cover more Rhubarb in sufficient quantity to keep up the supply. Put more Seakale into heat according to requirements, place a few Seakale pots on crowns in the open, and fill up with ashes. Lift clumps of Mint and Tarragon plant in boxes, and set in a gentle heat.

The Gardens, St. Mary's Isle, Kirkcudbright.

RECENT PLANT PORTRAITS.

THE Botanical Magazine for February contains portraits of

Yucca Guatemalensis.—A fine large flower of a greenish white shade of colour, and so like all other members of its family that it was hardly worth giving up a large double plate to, which might have been better employed in portraying a more interesting plant.

Tulipa linifolia.—Native of Turkestan. This is a most brilliant and beautiful Tulip, with curiously twisted, wavy, narrow foliage, some of the leaves appearing above the middle of the flower-stem.

Angelonia integerrima.—Native of Brazil and Paraguay. This is, perhaps, the prettiest of the twenty-six species of this genus, with curiously-shaped white pouch-like flowers with purple lip.

Bulbophyllum crenulatum.—Native of Madagascar. An Orchid of no beauty and merely botanical interest.

Gnidia polystachia.—Native of South Africa. This is an extremely pretty greenhouse shrub with a great profusion of bunches of small yellow flowers, borne at the ends of short branchlets, all up the stem. It was long ago figured in this magazine on plate 1463, under the name of *G. imberbis*, but was then not done anything like full justice to. The specimen now figured came from the Cambridge University Botanic Garden.

The first number of *La Revue Horticole* for February figures

Musa paradisica var. *rubra*.—A handsome form of the fruiting Banana, with deep red foliage.

The February number of *Revue de l'Horticulture Belge* figures

Nicotiana Sandera.—A fine deep red shade of this most free-blooming new hybrid annual, and *Arbutus Unedo*, the common form of the so-called Strawberry Tree. W. E. GUMBLETON.

THE KITCHEN GARDEN.

SCARLET RUNNER BEANS.

FIND in a leading wholesale seed catalogue as many as eight reputed distinct varieties of the Scarlet Runner Bean. They are the common Scarlet, Champion Scarlet, Hill's Prize Scarlet or Kentish Invicta, Girtford or Wiltshire Giant Scarlet, Ne Plus Ultra, Titan Scarlet, Sutton's Best of All, and a new variety Hackwood Park Success, which is being offered as a novelty by Messrs Veitch and Sons, Chelsea. To these can be added Sutton's A1 and a new early prolific market variety named Marvel, which is being offered by Messrs. Watkins and Simpson of Covent Garden. Both of these last-named new varieties claim to be unusually early in bearing and very prolific, producing their Beans in large clusters. Earliness and prolificacy in Runner Beans are most desirable qualities, and

improvements in these directions are highly desirable. The handsomest exhibition Scarlet Runner Bean I have seen in the few last seasons is Sutton's Best of All. It is long, shapely from end to end, and very handsome in appearance. Neal, who obtained Ne Plus Ultra, once informed me that it cost him fifteen years persistent selection, and his work is a proof of the patience a gardener can bring to bear upon attaining an ideal he has set before him. It is a performance well deserving a record. R. D.

DRY SUMMERS AND FORCING ASPARAGUS.

FOR years I have observed that the forced roots of Asparagus are not nearly so good when the season in which the crowns were formed was dry and hot. This year forced roots do not compare at all favourably with those of last year. Few vegetables require more moisture when forming the new crowns for another season than Asparagus, and this not only affects plants that are lifted and forced, but permanent roots for the supply from the open ground, as the reduced size of crown will show that the yield will be poorer. Of course, plants in heavy land or good holding loam suffer less from drought than those in light soil resting on gravel. When Asparagus is in active growth irrigation is a splendid thing, invaluable to the grower, and a means by which forced roots can be much improved. Those who form new beds would do well to get the best possible soil conditions as regards depth and absence of gravel. These points are quite as important as manuring—the latter may be overdone. G. W. S.

JERUSALEM ARTICHOKE.

THIS Artichoke will grow in any soil, but is most successful in a deep, well-manured friable loam and open situation. We enjoy it in winter as a change from Potatoes, and since Messrs. Sutton introduced the smoother white tuber, which has fewer eyes, and is of better flavour than the older types, the Jerusalem Artichoke is regarded with greater favour. It is profitable for the reason that though it needs considerable space the crop is in proportion. Many object to this root when served in the same way as Potatoes, but there is no need to do this. There are quite a dozen

methods of cooking, and few roots are better for soups and gravies. It should be remembered that once the plant is grown it will reappear from the smallest portion of root, and doubtless that is one reason why the plants are not given new quarters so often as they deserve. It is an easy matter, however, to clear the soil if care is taken when digging. Always purchase or save good seed, trusting nothing that will not give shapely roots, and change the stock when disease is probable or the plants fail to crop well. February and March are the best months to plant. There must be a space of 3 feet between the rows and 12 inches between the sets. More room may be given if available, and planting may also be done much earlier. Cover the sets with 6 inches of soil and leave the tubers in their growing quarters, digging them up as required or clamp them in the same way as Potatoes are frequently treated; they are best when not housed in a warm store, but kept as cool as possible. T.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

NAMES OF PLANTS.—Anxious.—1, *Pteris serrulata* major; 2, completely shrivelled up, impossible to name; 3, *Adiantum concinnum latum*; 4, *Adiantum Moorei*; 5, apparently *Selaginella cuspidata*; 6, a much-crested form of *Pteris Wimsetti*; 7, *Pteris cretica albo-lineata*; 8, *Pteris serrulata cristata*; 9, *Asplenium bulbiferum*; 10, *Pteris serrulata*; 11, *Pteris Wimsetti*.—Specimens without name of sender.—

1, *Sciadopitys verticillata*; 2, *Abies pectinata*; 3, *Pinus contorta*.—C. J. C.—Kerme's Oak (*Quercus coccifera*).—W. G. M.—The Fiery Thorn (*Crataegus Pyracantha*).—T. W. (*Polegate*).—1, *Libonia floribunda*; 2, *Iris fimbriata*; 3, *Echeveria secunda*.

NAMES OF FRUITS.—W. J. J.—Apple Cornish Aromatic.—A. R. S.—1, Feasgood's Nonsuch; 2, Reinette du Canada; 3, Smart's Prince Arthur; 4, 5, and 6, these are several forms of King of the Pippins; 7, Dumelow's Seedling; 8, Reinette Grise.

J. H.—The address is 42, Ranslagh Road, West Ealing, W.

PIT AGAINST A WALL (F. W. Phillips).—We should not attempt to make a gangway in the pit, but make it all bed. The flow and return pipes should be covered with slates and placed about 1 foot beneath them. At its lowest point the glass should be about 12 inches to 18 inches above the bed. Allow the moisture to drain away naturally, unless the ground is damp and water collects. Have the pipes the whole length of the pit, but place valves halfway along so that the heat can be turned off one-half when necessary. You do not say what you want the pit for. For growing many half-hardy plants it should be very useful. We do not see how you can get a pathway in, it is too narrow. You must leave the bottom part empty. Arrange the pipes and the slates above them so that the slates will not be more than, say, 4 feet from the roof glass at the deepest side of the pit. Then whatever plants you grow will be fairly near the glass. If you want a pathway in the pit the retaining wall you propose to build must be another 2 feet away so as to give room for it.

ANTS ON LAWNS (Bayfield).—We think that Carter's Worm Killer, which has been found so efficacious for destroying worms on lawns where they have become so numerous as to spoil the appearance of the grass would probably prove of value in ridding your lawns of ants. Not only does this kill the worms, but it also has a stimulating effect on the grass, so that it serves a two-fold purpose. If any reader of THE GARDEN can recommend something better than this, perhaps he would kindly send a note.

CULTURE OF COELOGYNE CRISTATA (Constant Reader).—You give us no idea of the accommodation you have for growing this most useful Orchid, so we take it for granted that you have a suitable house. It thrives well at the warm end of the Odontoglossum house. During the growing season the atmosphere should be moist and the water supply liberal; ample drainage is therefore necessary. If the compost gets at all in a sour or stagnant condition they will not thrive. When the bulbs have finished developing the supply of water should be decreased and the atmosphere of the house kept rather drier. Keep them supplied with sufficient water to prevent their shrivelling, and especially is this necessary when they are in flower. After the flowers are over the new growths soon begin to show. You must then be very careful that no water is allowed to get in them, for they very easily damp off. We find *CoeLOGYNE cristata* to grow best in large, shallow Orchid pots or pans. Take care to raise the sphagnum moss and peat into a fair-sized mound, so as to enable the growths to extend and the bulbs to develop. We think you will find they grow better in pans than in baskets. To have a succession of bloom you might remove some of the plants as



JERUSALEM ARTICHOQUES.

soon as the flower-spikes show to a warmer house, and give them rather more water. This will bring them on considerably. We hope these remarks will assist you. Taking care that the water does not enter the young growths which begin to appear when the flowers are open is most important, for if this takes place the plants must deteriorate. The growths and bulbs must be made firm on the compost, pegging them down with wire. Give a warm moist atmosphere when they are growing, *i.e.*, during summer, and plenty of water at the root. During autumn and winter less water, both at the root and in the atmosphere, is needed. If there is any special point in their culture that puzzles you write again.

HARDY CLIMBERS (*A. B. C.*).—You could have nothing better than *Clematis montana*, which flowers in May, for your early one, and *C. Flammula* or *C. Vitalba* (the Traveller's Joy), which bloom from July to September. They are beautiful in fruit as well as in flower, and all are vigorous growers. It would not harm them at all to plant them together, so that the shoots were interlaced. You might try the *Wistaria*; the only one worth trying would be *W. sinensis*, the common though very beautiful one. *Roses* Grüss an Teplitz, Caroline Testout, Grace Darling, and *E. V. Hermanos* would suit you, but not *Rêve d'Or*.

NICOTIANA SANDERÆ (*F. P. Richards*).—The seed of *Nicotiana Sanderæ* should be sown towards the end of February or early in March. The pot or pan must be quite clean and effectually drained with broken crocks. Then fill to within half an inch of the rim with equal parts of loam and well-decayed leaf-mould, with some silver sand. Pick out the roughest pieces, make the soil level, fairly firm, and moist. Sprinkle the seeds thinly on the moistened soil, and cover with a little fine soil, only enough being used to put the seeds out of sight. Placed in a temperature of 50° to 60° they will soon germinate, and when the young plants are large enough to handle conveniently they may be pricked off into other pans or pots, using the same kind of soil as before. Then, when large enough, pot singly into small pots, and when established therein shift into larger ones, still keeping them in the greenhouse. When all danger from frost is over these *Nicotianas* may be planted out of doors.

TWELVE VARIETIES OF TUFTED PANSIES FOR EXHIBITION (*J. M. C.*).—These are now not grown largely for exhibition. You must remember that the plants of the large exhibition varieties do not flower as freely and as consistently as those described as tufted sorts for ordinary border displays. Good exhibition sorts are *Mrs. T. W. R. Johnston*, upper petals mauve, under petals glossy black blotched with mauve, clean eye, and white brows; *Mother Doulton*, magenta centre, shading out to pink, upper petals pink, shading out to white, very large flower of splendid form; *Minnie J. Ollar*, creamy white, heavily edged with plum purple; *Mrs. P. Braithwaite*, mauve centre, shading to white, a very large flower; *Woodcock*, white centre, with lilac border, slightly rayed, a very fine flower; *Miss Anna Callan*, a very smooth flower of good size and beautiful form, colour pale lavender; *Mrs. Chichester*, an immense flower of good form, colour white ground, flaked and marbled purple; *Mrs. McPhail*, a distinct flower, colour rosy heliotrope, self, deepening towards the centre to pale violet; excellent for competitions; *Sunbeam*, a very distinct flower of the highest quality, and a plant that has a good habit; free-flowering variety, the colour of the blooms may be described as rayless cream yellow, edged lilac. Another fine flower is *Mrs. Cooper*; the flowers are very large and rayless, colour cream centre, beautifully marked rosy purple border, good habit; *Mrs. J. Johnston*, dark rosy purple centre, shading to light rose-pink, upper petal

light rose-pink also, a large smooth flower; and *Lady Grant*, a new sort, colour white centre, slightly rayed, heavily edged deep bluish purple; a great acquisition.

POTATOES AND WIREWORM (*Reader*).—Turf land when converted into arable land invariably gives the cultivator trouble as regards the presence of wireworm, but they disappear, however, in the course of a few years as the land becomes better cultivated. If you do not mind a little extra cost in labour, we should advise trenching the land, say 18 inches or 2 feet deep, adding a liberal dressing of horse manure, say one cartload to four poles (this should be placed on the top of the bottom layer of soil, not at the bottom of the trench). Gas lime and soot are the best antidotes against the presence of wireworm, and these should be applied in small quantities as the trenching proceeds, giving a light sprinkling only over each trench as the soil is turned over. The soil being light, and resting on a well-drained bottom with the treatment recommended, should return you heavy crops of unblemished Potatoes. The crop would be improved by the addition of a light sprinkling of nitrate of soda applied in showery weather when the Potato crops are about 5 inches high, and again before the tops meet in the row. The sets should be planted at least 18 inches apart in the row. The application of a green crop to the land, such as mustard, is to be commended whenever practicable; but salt is a dangerous ingredient to add, and should never be applied only as a light top-dressing in spring, and then only by someone experienced in its application. Nitrate of soda is a good substitute.

PLANTS FOR SMALL POND (*Aquatic*).—You will secure the best results by planting some of the newer Water Lilies, though it is possible in three or four years that some would become too large and would then have to be reduced. These would be best placed in the deeper part of the pond, and a few inches, say two or three barrowfuls of soil thrown in to give them a start. With the soil in position affix the plants to a stone or brick, and sink near the centre. The following are of the best: *Nymphaea Marliacea carnea*, *N. M. chromatella*, *N. Laydeckeri lucida*; the colours are, respectively, white and flesh, yellow, and soft vermilion, with brilliant orange stamens in the last named. To the foregoing you should add *Sagittaria variabilis* fl.-pl., a water plant with white blossoms like a huge double Stock and sharply pointed leaves, both of which stand well out of the water. You would require, perhaps, six of these. If you add any more it should be only for temporary effect, and *Nymphaea odorata grandiflora* and *N. o. roseacea* would do well. You may still further enhance the beauty of the pond by growing in pots *Iris Kämpferi* in variety, so placing the pots that the base just reaches the water. The margin could also be planted with *Campanulas* and other low-growing alpines.

VEGETABLE CROPS AMONG TREES (*James Robb*). Our correspondent's experience is rather a novel one, having to grow vegetables among forest trees, such as Beech and Sycamore. From a cultural point of view we should suggest that the Beech and Sycamore be grubbed up, and the land on which they stand be trenched and manured. Not only do their roots rob the ground, but their shade deprives the crops of the first essential principle of growth, namely, sunshine and light. However, as we presume a compromise has to be made between the vegetables and the trees, we would recommend deep trenching and liberal manuring of the ground, adding a quantity of heavy marly soil. Nitrate of soda we have found the best artificial manure to apply in conjunction with farmyard manure. Two slight dressings should be given in the course of the growing season, in showery weather if possible, to Potatoes when they are 5 inches or 6 inches

high, and again before the haulm meet in the rows; to Peas and Sweet Peas when they are the same height, and again just as they come into flower; treat Cauliflowers and Beans the same. Give the first dressing when they have well started into growth, and the second when they are three parts grown. As regards Strawberries better results we think will be obtained by watering these with weak liquid manure water (from cow manure), and on such light land as yours a watering once or twice a week in summer would be none too much, and should result in doubling your crop of fruit, especially if your plants receive a good surface mulch of rich manure early in the season.

EXHIBITING VEGETABLES (*A. Morris*).—In THE GARDEN for the following dates Mr. E. Beckett wrote a series of articles about exhibiting vegetables: March 1, March 8, March 15, March 22, March 29, and April 12, 1902. You will find those to be just what you want.

MEANING OF THE WORD PERGOLA (*Novice*).—Pergola is the Italian word which expresses a kind of open colonnade of rough pillars, built of any material that comes to hand, over which Vines are trained. A variety of Grape called Pergolésé is much grown in some districts in Italy, from which, in all probability, the pergola, or vine arbour, has derived its name. Its use is not confined to Grape culture, as it is a frequent addition to Italian gardens, forming a shaded walk or resting place in summer heat. Of late years this form of garden adornment has found great favour in England, and it may make a very charming feature when well carried out and where the surroundings are in accord, but it is not suitable for every position. The construction ought to be somewhat massive to give the true effect. Illustrations of some of the best examples of pergola are from time to time given in THE GARDEN.

FRAGRANT ROSES (*M. H.*).—Among the sweetest-scented Hybrid Perpetual Roses are the following: General Jacqueminot (red), Beauty of Waltham (cherry), Alfred Colomb (bright red), Dr. Andry (rich red), A. K. Williams (crimson), Charles Lefebvre (dark crimson), Sénateur Vaisse (rich red), Fisher Holmes (crimson), Louis Van Houtte (deep crimson), Henrich Schultheis (rosy pink), Magna Charta (deep pink), Ulrich Brunner (red), Mrs. John Laing (pink), Marie Beauman (red), Maurice Bernardin (black crimson), and Prince Arthur (red). You should not omit the silvery pink Hybrid Tea *La France*.

PLANTING VICTORIA CROSS BED (*C. T.*).—You do not give the size or shape of the proposed bed, but we presume it will be round, and make the following suggestion for its planting. Plant the cross itself in the centre with *Begonia Lafayette* (the cross to be effective should be a large one), a plant bearing intense and brilliant crimson flowers. The plant is rather a slow grower, and should be not more than 10 inches apart. The edge of the bed should be planted with a deep border of *Alternanthera magnifica* or pink Ivy-leaved Geranium, and the remaining part of the bed surrounding the cross with a bright silver-leaved Geranium, such as Bright Star or any other similar variety available. These Geraniums should be planted 15 inches apart, and between each should be a light blue *Viola*. The flowers of these will commingle with the foliage of the silver Geranium, and will produce a beautiful effect. Should you be unable to procure the *Begonias* for the cross you may substitute a bright, cheerful scarlet Geranium, not the dark scarlet.

MELONS AND PEACHES (*Cambs.*).—You cannot do better than grow Melons *Hero of Lockinge* and *Royal Sovereign*, both white flesh varieties, *Blenheim Orange*, and *Frogmore Scarlet* (scarlet flesh). Of Peaches grow *Royal George*, *Crimson Galande*, and *Princess of Wales*.

REFUSE OF ACETYLENE GAS (*H. P. Powell*).—I do not know of any use that you can put the refuse of your acetylene gas to. Its action on the soil would be very much the same as lime, but there are various impurities in it which might probably be deleterious to plant life. You might easily make some experiments, and if carefully carried out the result would be very interesting to many persons who are asking the same question.—G. S. S.

CREEPERS FOR WALL (*Lewin Jones*).—You cannot do better than plant the small-leaved Virginian Creeper (*Ampelopsis Veitchii*). It clings to the wall without nailing, grows quickly, and the leaves are a lovely colour in autumn. The Wistaria is another good plant for the purpose. Of berried plants you might plant the Pyracantha, which bears a profusion of bright coloured berries in winter. *Ceanothus veitchianus* with blue flowers is to be recommended. Then, of course, there is Ivy; some of the forms are very pretty. Of Roses *Gloire de Dijon*, *Reine Marie Henriette* (red), and *Mme. Alfred Carrière* (white) would doubtless grow well with you. An important point is to give the plants some good soil in which to grow. The bed should not be less than 2 feet deep, and, say, 2 feet wide. Put broken bricks in the bottom for drainage; enrich the soil with manure. Keep the Roses and *Ceanothus* on the west side.

DAMSONS AND APPLES (*Graft*).—The only thing we can suggest is that you should cut down the seedling Apples and Damsons and graft some good varieties upon them. You may take grafts from the seedling plants, but unless you are quite sure they are good varieties it will only be so much labour wasted. Growing seedling Apples and Damsons is not worth the trouble, for grafted trees of good sorts can be had cheaply. If you do not wish either to cut the trees down and use them as stocks, or to cut off the shoots and graft them on other stocks, the only thing to do is to transplant the trees and prune the largest and coarsest roots. This would probably hasten their fruiting. If, however, the trees are large and have been undisturbed for some years there would be some danger in transplanting them. With regard to the Walnut grafting is seldom practised in this country; it used to be thought impracticable, but that has been disproved. The French graft the trees when the stems are from 3½ inches to 5 inches in circumference. The sap must be in full flow at the time of grafting; March is the best time. Have you tried transplanting, say, every two years? This brings them into bearing more quickly.

FORCING POTATOES IN FRAMES OR POTS (*J. W. B.*).—If you have Potato tubers by you the first thing to do is to get them sprouted in gentle warmth and in full light. You would do well, if you have none, at once to obtain medium-sized clean tubers of Ringleader, Sharpe's Victor, Harbinger, May Queen, or other first early variety having fairly dwarf tops, setting them with the bud or crown ends upwards in shallow boxes. Put some Cocoanut fibre refuse, fine soil, or ashes in the bottom of each box first, then put in the tubers quite close together, sprinkle them, and stand in the light. If you have no room in the greenhouse place them close to a room window. For pot culture get pots 10 inches across. Put into each one a stout bottom crock, over that some half-decayed manure or droppings, then some of the coarser soil, filling each pot with a compost of good pasture loam well sweetened by a few months' exposure in a heap two-thirds, the other third being composed of old hot-bed manure, leaf-soil, a little soot, and also just a handful to each pot of bone-flour. When the tubers have sprouted remove all but the strongest shoots, then with a trowel plant one tuber 3 inches deep in the centre of each pot, cover up with soil, and gently water. Later the chief work will be found in watering,

sticking a few pieces of wood sprays in round the sides of the pots to keep the haulm erect, and adding, as tubers show, a little top soil to each plant. These plants should have ample light and air, and to keep up good growth a gentle heat of from 50° to 55°. To grow in a frame some bottom-heat is needful. Make up a proper bed of stable manure and tree leaves, place a frame on that, and fill in some 7 inches to 8 inches of good soil as for the pots. Plant the tubers as prepared with a trowel 12 inches apart as soon as the first strong heat of the bed begins to subside. Give a good watering with tepid water and shut down close. Later pack long manure all round the frame to keep in the heat.

GOOSEBERRY SAW-FLY (*E. J. Owen*).—If your Gooseberry bushes are attacked by the grubs of the Gooseberry Saw-fly (*Nematus Ribesii*), by far the best means of destroying this pest is to skim off not less than 2 inches of the soil beneath the bushes, and either burn it or bury it deeply, replacing it with fresh soil, for when the grubs are full grown they fall to the ground, bury themselves, and become chrysalides about 2 inches from the surface. It is quite certain that this pest passes the winter in this manner and in no other, so that if this plan be properly carried out your bushes will be free from the pest next summer, unless they are infected by saw-flies which have been bred in a neighbour's garden. This is by no means improbable, if their Gooseberry bushes were badly affected last year, and if they did not take efficient steps to destroy the insects the saw-flies may fly from their garden to yours. You had better as soon as the leaves open examine them well, and if you notice any small holes as if they had been pricked by a coarse pin the bushes should be sprayed with a solution of paraffin emulsion, Abol, or Antipest, taking care that the undersides of the leaves are well wetted. Dusting the leaves while wet with dew with finely-powdered lime is also useful. Spraying the bushes with Paris green, or dusting them with Hellebore powder is much recommended, but as both are very strong poisons great care should be taken in using them, and the other remedies are quite harmless and very satisfactory. As regards the white blight on your Apple tree, it is very likely *Sphaerotheca mali*; if it is, dusting the leaves with two parts of flowers of sulphur and one part of slaked lime, or spraying with loz. of sulphide of potassium dissolved in 2½ gallons of water are the best remedies.—G. S. S.

RAISING BEGONIA SEED (*A New Reader*).—No seedsman as far as we are aware offers seed of Begonia worthiana, but dormant bulbs which can be sent by post for a few pence are readily obtainable at this season, and at a moderate price. We cannot learn of this variety producing good seed, and even if it did a certain amount of variation would probably exist among the progeny. There is only one kind of B. worthiana, but there are other varieties somewhat in the same way which can also be used for bedding purposes. The typical B. boliviensis is much like it, and so is Cannell's Scarlet, while a variety offered by M.M. Vilmorin-Andrieux of Paris (Bertini) is said to be superior to worthiana.

IMPORTED AMARYLLIS BULBS (*J. R. T.*).—The Amaryllis bulbs should be potted with as little delay as possible, choosing for the purpose pots sufficiently large to allow about an inch of space between the bulb and side of the pot. A mixture of two parts loam, to one part each of leaf-mould, or failing this peat, well-decayed cow manure in a dry state, and silver sand forms a very suitable compost. Care must be taken that the different ingredients are thoroughly incorporated together. In potting the soil should be pressed down moderately firm, and the bulb placed at such a depth that the top is just above the surface of the soil. After potting a suitable place for this Amaryllis is a glass structure, where a night temperature of 50° to 55° is maintained, rising

10° or so during the day, and more with bright sunshine. When potted a watering may be given in order to settle everything in its place, but after this little will be required before the young leaves or flower-stem begin to push. By this time the roots will be active and a good deal of water needed. As your bulbs at present contain the embryo flower all that is needed for its development is to place it under favourable conditions, but in order to ensure flowers for next year it must, after flowering, now be kept watered as before till the leaves commence to turn yellow, which will probably be in the latter half of the summer. When this takes place the plants must be fully exposed to the sun, and the supply of water gradually diminished till by October they will in all probability be quite dormant. From then they may be kept quite dry in a temperature of 45° to 55° or thereabouts till next February, when they will readily respond to a little additional heat and moisture. If the roots are in good condition they will not need repotting next year.

USE OF GAS LIME (*W. B. R.*).—Gas lime applied at the rate of ½ lb. to 1 lb. per square yard is a valuable agent in sweetening the soil and killing wireworms and other insects, but no crop can be grown on the ground with safety for nine months after the application. The best time to apply it is in early autumn. Although it may seem waste of time, we think you would find it best in the end to devote your attention to killing the crops of weeds during the coming spring and summer. Manure the ground in early autumn and then plant. You can grow annual flowers this season so as not to have a flowerless garden. Just cover the lime with soil and leave it for two weeks before forking it in as you suggest. Do not, however, plant perennials, as by doing so you run a great risk of losing them. With annuals no permanent harm could be done.

PLANTING A VINERY (*G. T.*).—It is not wise to plant many Vines on the wall side of a three-quarter span vinery; you will never get any Grapes from them worth having until they reach the glass. The lower part of the Vines will be shaded by those planted at the front of the vinery as soon as they have covered the trellis. We should plant the varieties Trebbiano, Barbarossa, and Black Alicante against the wall, and as soon as the growths reach the glass train them above the pathway north and south instead of east and west. The other varieties you mention could be planted at the front of the house and trained up the trellis towards the span in the direction east and west. You do not say how old the canes are, but we presume they have not more than two seasons' growth. You must cut them back according to their strength; better cut them back too far than not far enough. A good foundation is everything. It is difficult to give you a height without seeing the Vines, but we should advise cutting them down to a height of 4 feet or 5 feet. Leave the strongest 5 feet, and the weakest 4 feet. Yes, cut them all back; you must make them grow strongly. Your border seems all right, and the soil is quite good enough without any animal manure. You can top-dress later with rich soil if necessary. Keep the uppermost roots within about 4 inches of the surface; it is a very bad practice to bury them as you suggest. Place the roots carefully out in layers, covering each one with soil as the work proceeds. They should be laid flat, or inclining upwards a little; they must not point downwards. Make each layer of roots and soil firm as the work proceeds. Vines never grow well in a loose border. We should like to say that you are making a great mistake in trying to grow so many sorts in the same vinery. Some of them—for instance, Muscat of Alexandria and Gros Colmar—need a higher temperature than some of the others, and will not ripen their fruit satisfactorily in a temperature suitable to the others. You would get much more satisfactory results by growing fewer varieties.

QUESTION.

WILLOW TREE.—INFORMATION WANTED.—Is it possible to procure slips of Willow from Willow trees that were grown from cuttings or slips from the Willow tree that grew beside Napoleon's grave in St. Helena? The original tree is now dead. I heard of one such Willow tree that flourished for some years in Aberdeenshire, and is now dead. Another one grew in the garden of the Roebuck Hotel, Richmond. The kitchens now occupy the ground that was formerly a garden. I believe that another tree flourished in a garden which sloped down to the river, where Lady Londonderry used to give Rose fêtes half a century ago. The house was subsequently occupied by a family of the name of Duncan. Is this garden and the Willow tree in it still in existence, and, if so, would the owner permit slips to be taken from it?—ENQUIRER.

LATE NOTES.

The Veitch Memorial Trust.—At a meeting of the trustees, held on the 9th inst., it was resolved that the sum of £50 be presented to the trustees of the Lindley Library for the general purposes of the Trust. A bronze medal and £5 are offered for competition at the Royal Caledonian Horticultural Show, on September 13 to 15 next, for six dishes of fruit, flavour and quality to be the primary consideration. A similar prize and medal is to be awarded for the three most distinct kinds in any one of the exhibits of vegetables, the object being to reward superior cultivation. Silver medals are also offered for improved methods of packing and transmitting garden and orchard produce, and for improved methods of affording shelter and protection to outdoor plants, as well as of heating, ventilating, and shading glass structures.

Origin of Chrysanthemum Tuxedo.—This Chrysanthemum was raised by Mr. Spaulding of New Jersey, U.S.A. I imported it in May, 1902. Colonel W. B. Smith, G. W. Childs, and several others (which are forgotten) were sent over the same season. I believe Messrs. Pitcher and Manda introduced the two latter about the same time with Lord Brooke.—W. WELLS, *Earlswood, Redhill.*

Royal Gardeners' Orphan Fund. An unusual state of affairs was disclosed at the annual general meeting of this fund, held at Simpson's, Strand, on the 10th inst. Instead of there being as many vacancies as candidates, thereby necessitating no actual election, as has usually been the case, this year there were thirty-one candidates and only fifteen vacancies. The chairman had also to draw attention to a decrease in the annual receipts, and made the serious statement that, had it not been for the generous subscription list at the last annual festival dinner, they would probably have had to face a deficit for the year. We hope that all who have the interests of the orphans of gardeners at heart will rally to the support of this most worthy fund, and do all in their power to maintain and also to increase the number of annual subscribers. We believe that a certain amount of apathy has existed towards the Gardeners' Orphan Fund simply because there have usually been no more candidates than vacancies. Now, however, things have changed, and this year no less than sixteen deserving orphans have not been elected owing to lack of more funds. Thus it is clearly shown that there is urgent need that the subscriptions should not only not decrease, but should increase. We therefore draw attention to the report of the meeting. Mr. Brian Wynne, Wellington Street, Strand, is the secretary.

SOCIETIES.

SOUTHAMPTON ROYAL HORTICULTURAL SOCIETY. THE annual general meeting of the above society was held in the Council Chamber of the Municipal Offices, on

the 6th inst., the Mayor, Colonel E. Bance, D.L., J.P., presiding.

The annual report was presented, of which the following is a digest. It stated that the council considers the society's financial position satisfactory, in view of the general depression that has prevailed. After detailing the events which led up to the amalgamation of the Southern Counties Carnation Society with this society, the report points out that the financial result of the Carnation show fully justified the action taken by the council in the matter.

The exhibitions of the past season had each a record entry. The summer show was more largely attended than usual, and all the exhibits were highly satisfactory. The Carnation show secured a record gate as well as a record entry. In this connexion the council express their appreciation of the great interest Mr. W. Garton, jun. (formerly hon. secretary of the Southern Counties Carnation Society) took in this show, as without his assistance it would have been impossible to have secured so signal a success.

The Chrysanthemum show was unquestionably the best of the long series of autumn shows held by this society, and whilst the Chrysanthemums are spoken of as being remarkable, the fruit made the grandest display ever staged by this society. Unfortunately, the attendance was not satisfactory, so that there was a loss on this exhibition.

The council regret the loss of over sixty members during the past season, and solicit the co-operation of the subscribers to increase the list.

The report concludes by tendering the grateful thanks of the council to various patrons and prize donors. The following is an abstract of the accounts presented (the subscriptions being apportioned to each show):

RECEIPTS.				EXPENDITURE.			
	£	s.	d.		£	s.	d.
From 1903..	15	4	9	Summer show ..	211	1	5
Summer show ..	219	1	6	Carnation show ..	131	6	2
Carnation show ..	147	14	2	Autumn show ..	204	0	7
Autumn show ..	193	10	8	Management ..	86	3	10
Management ..	86	3	10	New material ..	12	8	0
				Cr. balance ..	16	14	11
	£661	14	11		£661	14	11
Value of Assets—Cash ..	91	14	11	Liabilities nil.			
Material ..	50	10	6				
	£142	5	5				

It was stated at the meeting that Sir Samuel Montagu, Bart., had again placed his grounds at the disposal of the society for a garden fête, which will be held in July. All the retiring officers were re-elected. The president, Sir S. Montagu, Bart., for the fifteenth time, and the secretary Mr. C. S. Fudge, for the thirty-second time.

ROYAL GARDENERS' ORPHAN FUND.

THE annual meeting was held at Simpson's, Strand, on the 10th inst., Mr. H. B. May presiding over an attendance of about forty. Among those present were Messrs. H. J. Veitch, W. Marshall, W. Poupert, J. F. McLeod, E. T. Cook, J. Ashbee, Joseph Rochford, H. Alderson, W. Bates, W. Howe, W. Bull, W. Cutbush, G. Reynolds, and others. The secretary having read the minutes convening the meeting and the minutes of the last annual general meeting, the annual report from which we make the following extracts was taken as read.

ANNUAL REPORT.

In presenting their seventeenth annual report the executive committee has again the pleasure of congratulating the supporters of the fund upon a year's record of steady progress and enhanced usefulness. They could have heartily welcomed a larger measure of financial support, especially from the class whose children alone derive the benefits of the fund, but in the face of the "hard times" it is a matter for congratulation that the revenue (exclusive of legacies, &c.) shows an increase of some £35.

There has been a slight increase in annual subscriptions, which is unhappily considerably more than counterbalanced by the falling off under the general heading of donations. This the committee greatly deplores for the reason that the deficiency is attributable mainly to the smaller amounts obtained by means of collecting boxes, the sale of flowers, &c., at exhibitions, musical entertainments, and the opening of private gardens for the benefit of the fund. On the other hand, the collection at (and in consequence of) the annual festival amounted to a larger sum than has resulted from any festival held since 1896.

The payments made on account of the children show an increase over the amount paid in the previous year of £74 10s., largely owing to the increased number of candidates who required assistance while waiting for election. The committee consider it extremely desirable that they should be placed in a position to meet the numerous pressing applications for assistance made under rule 14, and again earnestly appeal to those most nearly interested in the matter for a larger measure of support to enable them to do so.

The usefulness of the fund has never been made more apparent than is evidenced by the greatly increased number of candidates seeking election at this meeting, and it is a source of keen regret to the committee that the funds at their disposal do not justify them in recommending the election of more than fifteen—fourteen by election in the usual way, and one by resolution to receive the allowance from the "Emma Sherwood Memorial."

With a deep sense of gratitude the committee once more acknowledges the munificent support accorded to the fund by its treasurer, Mr. Sherwood. In addition to a most

generous annual subscription, Mr. Sherwood provided the means for placing a child on the fund at the first election held in 1888, and has since maintained another child for ten years, by an annual payment, as an "Emma Sherwood Memorial." To these benefactions Mr. Sherwood has added a munificent gift of £500 to endow the "Emma Sherwood Memorial" in perpetuity.

The annual festival held on May 17, under the presidency of Sir Trevor Lawrence, Bart., K.C.V.O., again proved a most gratifying success. The subscription list amounted to £818 18s., the largest amount collected at any festival since 1896.

With very great pleasure the committee make the announcement that the next annual festival will take place at the Hotel Cecil on Thursday, May 11, when for the first time in the history of the fund the chair will be occupied by a Scottish nobleman, the Right Hon. the Earl of Mansfield having most kindly consented to preside on that occasion.

With very sincere regret the committee records the death of one of the founders of the fund, Mr. Herman Herbst. A generous benefactor during life, Mr. Herbst did not forget the poor children in death, having left a legacy to the fund of £100.

To the numerous local secretaries who continue to assist the fund the committee again tender their warmest thanks; and especially to Mr. R. Scott, gardener, Moorfield, Manningham, who from the inception of the fund has been local secretary for Bradford.

Mr. May, in moving the adoption of the report, said their present satisfactory condition was due in a large measure to the success of the last annual festival dinner, but for the generous subscription list then they would probably have had to face a deficit. This was a matter of great concern. Their responsibilities were increasing; to-day there were thirty-one candidates for election and only fifteen vacancies. Several more were already notified for next year. How to increase the annual donations was the problem; unfortunately, they were gradually decreasing. Some sources, such as local horticultural societies' funds were failing, so it was all the more important to have more subscriptions. The chairman mentioned that the secretary had sent out over 500 circulars to ladies interested in gardening, but the money received was not more than sufficient to pay for the circulars. Thus the result was very disappointing. Mr. May appealed to all ladies interested in gardening to do something for gardeners' orphans. Two years ago the committee were given power to extend at their discretion the privileges of the fund to orphans beyond the specified time; this had been done in several cases with very gratifying results. This liberality would, however, have to cease, said the chairman, unless further support were forthcoming.

Mr. William Marshall seconded the adoption of the report, and in doing so said that although he knew all the cases proposed for election were thoroughly deserving, he thought it was a mistake to elect two children in the same family. He thought it a better principle to give two widows 5s. each than to give 10s. to one. It was a subject worthy of their serious consideration.

Mr. A. Dean supported Mr. Marshall's remarks. He said this opinion was largely held among gardeners in country districts, and in some instances prevented their subscribing. He drew attention to Mr. Burrell's note on this subject in THE GARDEN of the 11th inst.

The chairman said the subject was not a new one. Several years ago the same complaint was made. In 1900 the question was raised by the Bournemouth Gardeners' Society, and the committee then stated that a second child in the same family would not be elected except in special circumstances. To-day they had received a similar letter from the same society, protesting against the rule that allows two children from the same family to benefit. The chairman said that if the committee found this rule detrimental to the interests of the society they would ask for it to be amended. Until now there had been hardly any contest for election between the candidates. They must also remember that 2s. 6d. weekly is granted to the most deserving of the unsuccessful candidates.

Mr. Harry J. Veitch suggested that the rule should be altered so as to exclude two children of the same family being nominated for election at the same time; a second child must not be nominated until the first was elected. This suggestion, which was received with approval, is already under discussion by the committee.

Mr. Lyne, Chislehurst, thought that the fact of two children in the same family being elected did not adversely influence gardeners' subscriptions. He thought some of such cases were more deserving than those where there was one child only. The report was then passed unanimously.

The other business comprised the usual votes of thanks to the treasurer (Mr. Sherwood), the auditor (Mr. P. R. Barr), and their re-election, the re-election of Messrs. Alderson, G. H. Barr, Cutbush, Lyne, Howe, Sanders, Thompson, and Poupert (retiring members of committee), and the re-election of the secretary, Mr. B. Wynne. The scrutineers of the ballot reported the result of the poll as follows; the number of votes is given in brackets: Hogan, Francis Thomas (327); Kempell, Winifred Alice (284); Mann, Doris May (302); Mann, Marguerite Jane (284); Ryder, Beatrice Mary (276); Coombes, Frederick (257); Day, Eric Charlton (249); Parker, Dorothy Elizabeth (240); Best, Arthur Victor (220); Ryder, Charles E. A. (212); Hogan, William Benedict (200); Gillett, Elizabeth (178); Peckitt, Norman Alexander (173); and Foote, Frank (167). Another candidate, Bessie Hedges, with 155 votes, the next highest on the list, was chosen to benefit from the "Emma Sherwood Memorial Fund."

A vote of thanks to the chairman, Mr. H. B. May, closed the proceedings. In the evening the committee dined together at Simpson's.

ROYAL HORTICULTURAL SOCIETY. ANNUAL MEETING.

THE one hundred and first annual general meeting was held on Tuesday last in the Horticultural Hall, Vincent Square. Sir Trevor Lawrence, Bart., presided over a fairly large attendance, and was supported by the following members of the council: The Earl of Ilchester, Captain G. L. Holford, Sir J. T. D. Llewellyn, Bart., Sir Albert Rollet, M.P., Mr. H. J. Veitch, Mr. W. A. Binney, Mr. H. B. May, Mr. James Hudson, and Mr. J. Gurney Fowler (treasurer). Nearly one hundred new Fellows were elected. The secretary, the Rev. W. Wilks, read the notice convening the meeting, and the minutes of the last annual general meeting. The report was then taken as read. We make the following extracts:—

ANNUAL REPORT.

It is in great measure due to the perseverance and generosity of Baron Sir Henry Schröder, Bart., V.M.H., that the society is now in possession of a magnificent hall and offices of its own, though the kindness and liberality of other Fellows in supporting his efforts must by no means be lost sight of. The society is under a great obligation to the Baron, and to all others who have assisted in providing the society with such excellent buildings.

While the council congratulate the Fellows on the raising of so large a sum as £25,178 towards the building of the hall, they cannot but look upon it as a misfortune that there still remains a debt on the building fund of £8,989. The council make an earnest appeal to the Fellows to help in paying off this debt, and invite every Fellow to send a contribution at once for this purpose, so that in the new century of the society's existence it may not be hampered by a heavy deficiency.

The new gardens at Wisley, so generously purchased for the society's use by Sir Thomas Hanbury, V.M.H., have received much attention. A large range of glass houses has been erected; a new house for the superintendent and a cottage for the fruit foreman have also been built, and extensive water and sewage works have been carried out. Seven acres have been planted with a representative collection of fruit trees and bushes kindly presented to the society by Messrs. G. Bunyard and Co., Limited, Dicksons, Limited, John Fraser, H. Lane and Son, Hugh Low and Co., Paul and Son, J. R. Pearson and Sons, Thomas Rivers and Son, W. Spooner and Sons, and J. Veitch and Sons, Limited.

In the spring of the year, to the great regret of his colleagues, the Right Hon. the Lord Redesdale felt obliged to tender his resignation of his seat on the council on account of absence abroad. Later in the year a great loss was sustained through the sudden death of Mr. Frederick G. Lloyd, who was elected to a seat on the council on December 13, 1898. Acting in accordance with bye-laws No. 61 and 62, the council elected Mr. W. A. Binney and Sir Albert Rollet, M.P., to fill the vacancies thus caused in their body.

Early in the year the council were invited to nominate two representatives to sit on the Board of Examiners appointed by the University of Oxford in connexion with the horticultural department of Reading College. The council were fortunate in obtaining the consent of the Right Hon. the Earl of Ilchester and Mr. Arthur W. Sutton, V.M.H., to act as the society's representatives. On February 16, 1904, the Royal Scottish Arboricultural Society celebrated their jubilee, and the society was represented on that occasion by Mr. A. D. Webster, F.R.H.S. The Royal Caledonian Horticultural Society will be celebrating their centenary in the forthcoming year, and the council have accepted an invitation to send a deputation to Edinburgh for the great show on September 12. The council have accepted another invitation to send a deputation to Paris in connexion with the International Horticultural Exhibition to be held there in May, 1905.

The Journal still continues to be highly valued by the Fellows. During the past year Parts 3 and 4 of Volume XXVIII. have been issued, and before this report is sent out it is hoped that Parts 1 and 2 and a portion of Part 3 of Volume XXIX. will have been published and issued to the Fellows. The publication of Volume XXIX. has been purposely delayed in order to assist the finance of the society, which has this year needed great care and management, but the Journal has only been delayed a couple of months at the most. The council take this opportunity of again thanking the writers of papers and the compilers of abstracts for their generous and ready assistance in thus enabling the society's Journal to take a foremost place among the publications of the scientific societies of Europe.

The room in which the library will in future be housed has been admirably furnished and fitted, through the liberality of Baron Schröder, who, besides his original subscription of £5,000 to the hall, has most generously defrayed the whole cost of moving the library and housing it worthily.

The society's twelfth annual examination in the principles and practice of horticulture, for which 190 entries were received, was held at sixty-six local centres on Wednesday, April 20, 1904. In view of the increasing demand in country districts that the schoolmasters should be competent to teach the elements of cottage gardening, and the absence hitherto of any test whatever of such competence, the society also held on Tuesday, June 21, an examination for elementary and technical school teachers only, for which 124 entries were received. The results of these examinations will be found in the Journal Volume XXIX., pages 161, 160. These examinations will be repeated in 1905 on April 12 and April 5 respectively.

The council again point out to the Fellows the great obligation the society is under to the members of the standing committees for their prolonged labours for the benefit of the society and of the science it represents.

They would also take this opportunity of expressing publicly the special thanks of the community to the Rev. Professor Henslow, V.M.H., for his unremitting labours as secretary of the scientific committee since 1880, which he is now, amid the universal regret of his colleagues, relinquishing on account of his change of residence.

The council would again draw the attention of the Fellows to the excellent work which has been carried on at Chiswick for nine years past by the superintendent, Mr. S. T. Wright, among the students under instruction there.

During the forthcoming year trials will be carried out at Wisley with Potatoes, Peas, Broccoli, and Tomatoes amongst vegetables, and with Violas, Sweet Peas, Carnations, and Cactus Dahlias amongst flowers. It is also proposed to plant portions of the land at present unoccupied with a representative collection of trees and shrubs, and with the best varieties of every description of Rose. The large span of glass and the increased area of ground afford far greater facilities than ever before. Donations of trees, shrubs, hardy Alpine and other plants, seeds, and cuttings would prove most acceptable.

Whilst fully recognising that the present satisfactory condition of the society's affairs is largely due to the generosity and kindly assistance of the Fellows, the council would urge them not to relax their exertions, but rather to make a renewed effort to wipe off the debt still remaining on the hall, to complete the equipment of Wisley by the erection of a horticultural research station, and to increase the roll of Fellows to 10,000 by the end of the hundred and first year of the society, which closes on March 6, 1905.

Sir Trevor Lawrence, in moving the adoption of the report, said the Fellows had every reason to congratulate themselves upon the society's position. He read a letter from the Rev. H. Dombain contrasting the present flourishing condition of the society with its position some years ago. Sir Trevor referred to the opening of the new hall by the King, a matter alluded to in the report. The valuable acoustic properties of the hall were also mentioned; it had been referred to by critics as excellent for concerts. They much regretted the absence of Baron Schröder, to whom they were so greatly indebted. It was proposed to fix a tablet to commemorate Baron Schröder's services to the society. They also owed a great debt of gratitude to Sir Thomas Hanbury for the Wisley Gardens. Sir Trevor said that £4,700 had been received for the sale of the lease of the Chiswick gardens; this would considerably help to cover the outlay at Wisley. It was hoped eventually to be able to establish a horticultural laboratory at Wisley, an eminent scientist had already offered to carry on work there, but no details could yet be given. The Journal was a pattern of what such a production should be. Neither its importance nor the importance of the services of the secretary, the Rev. W. Wilks, could be exaggerated. Sir Trevor Lawrence referred to the fortnightly exhibitions, and made special mention of the Orobids shown that day by Mr. Colman. The summer show would be held in the grounds of the Royal Military Hospital at Chelsea on July 11, 12, and 13. He asked the meeting to give a vote of thanks to Lord and Lady Ilchester for allowing the society to use Holland Park. The president mentioned the valuable work of the committees and staff, and, in conclusion, said that the income of the society was £14,000; the working profit last year was over £5,000. The income from subscriptions was £10,000; that is, £1,000 more than the ordinary expenses.

Mr. A. W. Sutton seconded the adoption of the report. Mr. Sutton said that thanks were due to the council for having carried through so well the work of erecting the hall. He hoped that all present who had not contributed to the hall would do so. After mentioning several matters which are included in the report, Mr. Sutton hoped that before long the society would be able to hold an International show and extend hospitality to visitors from abroad, as they so often did to us.

Mr. J. Gurney Fowler (treasurer) said that at the end of 1902 the funds were £16,000; now they are £51,100. This represents an increase of £35,100 in two years. The cost of the hall was £40,000, the original estimate, and the cost of Wisley is estimated to be £690 more than the £4,700 received for the Chiswick lease. Before they could say that the Fellows had actually paid for the hall and garden £15,052 would be needed. He would much like to leave the funds as he found them, and be able to pay off the hall and garden debts also. He estimated it would cost £1,800 a year to maintain the hall. They had borrowed £6,000 from the bank. Last year only one number of the Journal had been published. This year there will be the cost of three. He hoped to have a surplus of between £2,000 and £3,000 next year.

Mr. H. J. Elwes, F.R.S., congratulated the treasurer upon such a business-like statement of accounts. He suggested that the Journal was too much to give away to every Fellow, and that an additional subscription should be paid by those who wanted it. Mr. Elwes also suggested with a view to limiting the quantity and improving the quality of the matter in the Journal that a publication committee of experts should be formed. He thought this work should not fall to the secretary. With regard to Wisley he hoped that steps would be taken so as to find out exactly what Wisley was suitable for before any plan was embarked upon. They must first determine what could best be done at Wisley.

Sir Trevor Lawrence, in replying, said they were afraid that if the Journal were reduced country Fellows would complain. They attached much value to the Journal and the plants sent out. The matter of the suitability of Wisley for certain purposes had received and would receive careful consideration. They had the advice of some of the best horticulturists in the kingdom. The

meeting closed with the election of officers and the usual votes of thanks.

ORCHID COMMITTEE.

One end of the hall was filled with a group of Orchids from Jeremiah Colman, Esq., Gatton Park, Reigate (gardener, Mr. W. P. Bound). This group was composed chiefly of Dendrobiums, all splendidly flowered, and combining to make a very fine display. Each plant had plenty of room, and greenery was tastefully interspersed. We refrain from mentioning the names of the Dendrobiums shown, but many of the best species, hybrids, and varieties were included. The centre of the group consisted of white varieties of *Lælia anceps* and the orange yellow *Epidendrum Boudin*, making a most effective combination. The rare *Cymbidium Hookeri* was also noticed here. *Calanthes Bryan* and *William Murray* showing from Asparagus Sprengeri, and various bright-coloured *Lælio-Cattleyas* and other Orchids added variety to this exceedingly meritorious display. Gold and Lindley medals.

Messrs. Hugh Low and Co., Bush Hill Park, near Enfield, N., showed several *Cypripediums*, including *C. J. Howes*, *C. aureum* *Edippe*, *C. nitens magnificum* (G. S. Ball's var.) and others, *L.-C. Helena*, and *Cattleya Triane Perfecta*.

Messrs. James Veitch and Sons, Limited, Chelsea, S.W., exhibited some very attractive Orchids, among them *L.-C. warnhamensis*, *Lælia Mrs. M. Gratrix*, *L.-C. Haroldiana*, *L.-C. Violetta*, *L.-C. Pallas*, *Dendrobium Scylla*, *L.-C. blechleyensis*, *Dendrobium atro-violaceum*, and others. Silver Banksian medal.

Some interesting and beautiful Orchids were shown by Baron Schröder, The Dell, Egham, Surrey (gardener, Mr. Ballantine). In the background *Calanthes* were arranged, *C. Baron Schröder* var. *pallida* and *C. Reznieri* being conspicuous. *Cypripediums* were represented by finely-flowered plants of *C. lathamianum* and *C. insigne* var. *undulatum*. *C. insigne* var. *Laura Kimball*, *C. Baron Schröder*, and *C. i. Sanderæ* were among the rarer ones. There were some very handsome *Odontoglossums*, for instance, *O. wilckeanum*, *O. crispum trismagistum*, *O. Hallii* x *xanthodon*, *O. luteo-purpureum vuytkeanum*, *O. anderssonianum*, *O. crispum* var. *veitchianum*, and others. Various *Cattleyas*, *Lycastes*, *Sophranitis*, and *Dendrobiums* gave variety and colour to the group, in which each plant was good. Silver-gilt Flora medal.

Mr. James Cypher, Cheltenham, exhibited a small group of Orchids, in which were *Dendrobium nobile* varieties, *D. ellerianum*, *D. Ainsworthii intertextum*, *Cattleya Triane*, *Masdevallia gargantea*, *Epidendrum xanthinum*, and *Cypripedium Swinburnei magnificum*. *Cattleya calummatia*, with rich rose-spotted sepals, petals, and purple lip was very attractive.

M. Charles Vuytate, Loochristi, near Ghent, exhibited some very good forms of *Odontoglossum harry-crispum*, *O. radiatum*, and *O. bellatulum*.

The conspicuous feature in the group shown by Messrs. Charlesworth and Co., Heaton, Bradford, was of some finely-flowered plants of *Phalaenopsis schilleriana*, bearing strong ruffles of rosy pink and white flowers. These, together with the marbled foliage, produced a delightful effect. Messrs. Charlesworth also showed several handsome *Lælio-Cattleyas* and other hybrids. Silver-gilt Flora medal.

In the group of Orchids from Messrs. Sander and Sons, St. Albans, were *Odontoglossum Pescatorei* Prince of Orange, *O. crispum xanthotes*, *O. harry-crispum* var. *Rex*, and other very handsome hybrids. *Cypripedium Norma*, *C. Helen II.* var. *C. triumphans*, *Phaius Marthe*, two new *Cymbidiums*, and others. Silver Flora medal.

NEW ORCHIDS.

Cymbidium Sanderii.—First-class certificate. From Messrs. Sander and Sons, St. Albans. A new species from the East Indies. The sepals and petals are white, tinged with rose-pink, the lip heavily marked with short crimson lines.

Cypripedium Honnorei.—This is the result of a cross between *Duroyi* and *leucocochium*. From W. W. Appleton, Esq., Weston-super-Mare. Award of merit.

Cypripedium Craveniae.—This is a variety of *C. Leonie*. From J. E. Craven, Esq., Keighley, Yorks. Award of merit.

A botanical certificate was given to Vanda Watson, a new species with small white flowers. (Sander and Sons.)

FRUIT COMMITTEE.

Messrs. George Bunyard and Co., Maidstone, exhibited a splendid collection of Apples, remarkable both for their good condition and their rich colouring. They formed a particularly valuable object-lesson, as showing which varieties are at their best at this season of the year. Particularly finely coloured were *Baumann's Red Reinette*, *Cox's Pomona*, *Wealthy*, *Bismarck*, *Mère du Ménage*, and *Calville Rouge*. Other sorts that made handsome dishes were *Stone's Apple*, *Withington Fillbasket*, *Bistighheimer*, *Tibbitt's Pearmain*, *Royal Jubilee*, *Nancy Jackson*, *The Queen*, *Gascoyne's Scarlet*, *Reinette Supérieure*, *Lord Derby*, *Brabant Bellefleur*, and others. Cornish Gilliflower and *Rosemary Russet* were well shown. Gold medal.

The King's Acorn Nursery Company, Hereford, exhibited a most attractive collection of Apples. The fruits were of good colour and firm. Specially good were *Sandringham*, *Lady Henniker*, *Gascoyne's Scarlet*, *Waltham Abbey Seedling*, *Tyler's Kernel*, *Frogmore Prolific*, *Lane's Prince Albert*, *Beauty of Kent*, *Royal Jubilee*, and *Annie Elizabeth*. Silver-gilt Kensington medal.

A silver Banksian medal was awarded to Oswald P. Sewold, Esq., Taplow Hill, Taplow (gardener, Mr. R. Bullock), for a collection of Apples.

*. * Owing to pressure upon space, the report of the Floral Committee and notices of New Plants are held over until next week.

*. * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN

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FEBRUARY 25, 1905.

NEW ORCHARDS.

HOW SOON AFTER PLANTING MAY A FAIR CROP OF FRUIT BE EXPECTED?

WE have received the following letter from one much interested in the promotion of the fruit industry in England, and the reply may be interesting to our readers in general:

"An orchard does not bear any real weight of fruit for—with standard trees ten years, and bush trees five years. The estate on which this experience of the progress of an orchard is based is in Herefordshire. The trees were planted under the supervision of a well-known practical gardener. The subject is an interesting one, and deserves more light being thrown upon it (if possible) for the information of amateurs and others about to embark on the business of fruit growing, not as a luxury, but as a healthy and profitable outdoor occupation. Our correspondent assured us that last year it was only possible to obtain 6d. a bushel for Apples (surely this must show a great want of system in the disposal of them), and he said he knew that quantities of Apples were sold at 3d. per bushel. It was also not possible to pick the Apples in Herefordshire, as they do not stand the cost. All cider Apples are allowed to fall to the ground."

The question as to whether a new Apple orchard (we will take the Apple, as it is the most important fruit) will bear a substantial crop of fruit in the time specified may, we think, be answered in two ways. First, no. If it is a question of planting an orchard on turf, and the grass is allowed to grow close to the stems of the trees, and with no further attention or help in the way of top-dressing with rich soil or manure, we must say no. Yet this answer wants qualifying; so much depends on the condition of the land, manuring and preparing of the soil, the quality of the trees, the selection of varieties, and the care and knowledge with which they are planted. Should the trees be planted in thin and poor soil, resting on gravel, with little or no previous preparation, the trees will not bear a substantial crop in twice ten years. Indeed, the man who plants Apple trees (or any other fruit trees) on such poor land is doomed to failure from the first.

On the other hand, if healthy, well-rooted young trees are obtained, and they are planted in good holding soil, well drained and of moderate depth—say, 18 inches or

2 feet—the ground is well prepared in the way of digging out holes 5 feet wide, the soil stirred to its full depth, and enriched with half a barrowful of well-rotted manure to each tree, and planting is carefully done, good results will follow. Standard trees planted under these conditions, especially if the turf is removed from round the stems for a distance of 3 feet, and occasional top-dressings are given, would bear substantial crops in less than ten years.

In forming a judgment of the value of an orchard planted under these conditions, it must be remembered that the owner is planting not only for himself, but also for his successors and for the permanent benefit of his estate. An orchard planted under these conditions is formed with the object of remaining profitable for at least forty years, and it is not fair or reasonable to expect immediate heavy crops; moreover, it must not be forgotten that the owner for the first few years after planting receives almost as great a return for the grass in the shape of hay annually as he did before the trees were planted. An orchard of this description increases in value up to twenty or more years, and will remain in good profit afterwards for another twenty, so that it surely, if slowly, becomes a valuable asset to the planter and to his estate.

To plant for early profit it is necessary to adopt quite a different system of culture. Instead of planting on grass land the trees must be planted on deeply cultivated and well-manured arable land, and instead of standards 12 feet apart, bushes on English Paradise stock must be planted at 7 feet apart in the row and the same distance between the rows. Fruit trees never make a large growth the first five years after planting, therefore some other dwarf crop in the way of Strawberries, Potatoes, Cauliflower, or other vegetable crops may be grown on the land between them until the trees by their extended growth will have made this impossible. Under the system of close planting the time will come in the course of ten or fifteen years that the trees will have filled the whole of the ground and will be more or less growing into one another. The proper course then to take will be to cut every other tree down and grub its roots up, giving the needful room for the further development of those left. Those dispensed

with will have paid for themselves over and over again, as when bought in quantity the original cost would not be more than 1s. 6d. per tree. Bush trees cost less in management than any other form. No ladders or steps are required for many years for pruning, spraying, or gathering the fruit, and a profitable return of fruit would result in much less time than from the former plan.

Too many varieties are grown. British growers of Apples have much to learn on this point. One great failure in the past as compared with American growers (who confine themselves to three or four) is that we have clung so tenaciously to the culture of too many sorts, on the plea that they are wanted to furnish a long supply for dessert and cooking. This plea is valid enough in relation to a private supply for home consumption, but, when considered in relation to fruit for profit, it is the greatest mistake which can be made. What the Apple grower for market should do is to find out the sorts that command the best price in the market, and to grow only those varieties in large quantities. We have heard of several growers who have shown samples of popular Apples, such as Cox's Orange, Blenheim, and others, to Covent Garden dealers, who have offered good prices, but, when asked if they could supply a few tons of these sorts, the growers were dismayed at the enquiry, replying that they could only supply them in bushels. Bushels are of no use in Covent Garden; the right sorts and quality are wanted by the ton, and when the proper sorts to suit the market are grown in this quantity instead of in bushels, then, and not before, will Apple growing in England become the great and profitable industry it is capable of developing into.

For our part, if we had an orchard, say, of ten acres, and had one acre of Worcester Pearmain, three acres of Cox's Orange Pippin, three acres of Newton Wonder, one acre of Wellington, and two of Lane's Prince Albert, we should not much care who had the rest of the varieties as far as growing for profit is concerned. Gathering, grading, and collecting are important points in relation to the successful disposal of the fruit, and they are points to which farmers and country growers have given little or no practical attention.

With regard to the profitable disposal of country-grown fruit, it is earnestly to be hoped that the Government Commission

recently appointed, and now sitting to receive evidence on this subject, will specially direct their attention to the best and most economical methods of bringing the grower and consumer together. Until something is done in this direction on lines similar to those laid down by the Evesham growers, or in some other way favourable to the easy, expeditious, and cheap distribution of fruit, we are much afraid that, whatever else is accomplished by the commission in the way of helping forward the fruit-growing industry in England, the result will still remain, in the absence of these better facilities, unsatisfactory. It is the carriage, agents' charges, and market tolls that stifle the industry.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

- March 1.—Sheffield Horticultural Society's Meeting.
 March 4.—Meeting of the French Horticultural Society of London.
 March 6.—Mansfield Horticultural Society's Meeting.
 March 7.—Sevenoaks Gardeners' Society's Meeting.
 March 8.—Meeting of the Sheffield Chrysanthemum Society.
 March 14.—Royal Horticultural Society's Meeting.

A coloured plate of the Darwin Tulip *Marguerite* (Margaret) will be given with *THE GARDEN* next week.

The National Potato Society's schedule.—The Secretary informs us that this will be ready in about a week. Copies will be posted to all applicants towards the end of February or early in March.

Royal Horticultural Society.—The next exhibition and meeting of this society will be held on Tuesday next, when a lecture will be delivered by the Hon. J. H. Turner, the Agent-General for British Columbia, on fruit growing in that province, which will be illustrated by lantern slides. The subsequent lectures during the year deal with Bananas, Potatoes, retarded Potatoes, foreign competition in fruit, orchard management, and crystallisation of fruit; there will be four lectures on "Japanese Horticulture," "Japanese Plants and Gardens," "Japanese Dwarf Trees," and "The Making of Japanese

Gardens in England." On July 4 a lecture by Professor Webber of Washington will be delivered on "Horticulture in the United States." The Rev. Professor Henslow has kindly consented to lecture three times during the year on "Bud Variation," "The Plants of the Bible," and "The True Meaning of Natural Selection." The society's great spring and summer shows will be held in the Temple Gardens and in the grounds of Chelsea Hospital respectively.

HOPE.

THE Winter's voice may fiercely sound,
 And madly rage the blast;
 The ice and snow lie strewn around—
 Yet Spring will come at last.

The gathering fogs may hide away
 The sun from our sad gaze;
 Yet on some blissful future day
 He'll wake the earth to praise.

Rage on, ye storms! I fear ye not
 Your mighty strength reveal!
 On tiptoe from some hidden spot,
 At night, the Spring will steal.

The earth will wake all fresh and green
 Scarce knowing what has passed,
 And with a happy, joyful mien,
 Smile to the heavens at last;

All garlanded with blossom sweet,
 Whose scent can never cloy,
 Whilst brooklets ripple round her feet,
 Like sparkling tears of joy.

Then hush! be still, complaining heart!
 Although the frosts remain,
 The earth will soon be taking part
 In May-day feasts again.

And should'st thou oft grow cold with fear,
 Joy seem for ever past—
 Remember, this and every year,
 God sends the Spring at last!

GEIBEL.

—(Translated by SYDNEY HESSELIGGE.)

The weather in 1904.—The usual monthly meeting of the Royal Meteorological Society was held on Wednesday evening, the 15th inst., at the society's rooms, 70, Victoria Street, Westminster, Mr. Richard Bentley, F.S.A., President, being in the chair. Mr. E. Mawley presented his report on the phenological observations for the year 1904. The weather of the phenological year ending with November, 1904, was chiefly remarkable for the persistent rains in January and February, the absence of keen frosts in May, the long continuance of hot and dry weather in

July, and the small rainfall during the autumn. Throughout the year wild plants came into flower behind their usual dates, but at no period were the departures from the average exceptional. Such spring migrants as the willow, cuckoo, and nightingale made their appearance in this country at as nearly as possible their usual time. The yield of Wheat per acre was the smallest since 1895, while those of Barley, Beans, and Peas were also deficient. On the other hand, there were good crops of Oats, Potatoes, and Mangels. The best

farm crops of the year were, however, those of Hay, Swedes, and Turnips. Both Corn and Hay were harvested in excellent condition. Apples were everywhere abundant, and all the small fruits yielded well, especially Strawberries, but there was only a moderate supply of Pears and Plums. The other papers read were "Observations of Meteorological Elements Made During a Balloon Ascent at Berlin on September 1, 1904," by Dr. H. Elias and Mr. J. H. Field, and "The Winds of East London, Cape Colony," by Mr. J. R. Sutton.

Staffordshire County Council—Education Committee.—I have pleasure in forwarding you a copy of the report on the experiments in connexion with agriculture conducted in Staffordshire and Shropshire, and at the Harper Adams College. I would also like to draw your attention to the fact that the committee place the services of their agricultural instructor (Mr. John C. Rushton) at the disposal of farmers in the county, and, as far as time permits, he will be willing to give advice upon all matters connected with agriculture, e.g., insect pests, uses of manures and their valuation, feeding stuffs, management of meadow and pasture land, diseases of crops, identification of grasses, weeds, &c.—GRAHAM BALFOUR, *Director of Education*.

Origin of the blue Primrose.—I can quite understand that "Ignoramus" should have found something puzzling in my account of the origin of the blue Primrose. I may, perhaps, make my meaning clearer if I say that Scott Wilson was the ancestor and Oakwood Blue the mother of the present strain of blue Primroses. The former was not blue, but was an advance on the bright mauve shades that distinguish the coloured Primrose, and pretty clearly foreshadowed the coming of the true blue strain. When Mr. Wilson began growing hardy flowers at Wisley he tried to do so without destroying the natural features of the place, and that was how Scott Wilson came to be planted on the side of the hill in the shelter of a Furze bush. It was in this way that Mr. Wilson attempted to grow many things, but later on he found that only a few things were suitable for this form of gardening.—J. CORNHILL.

A remarkable bequest to scientific horticulture.—The news that no less a sum than £325,000 has been willed for the foundation and upkeep of a school of scientific horticulture at Merton is almost startling. This is, however, the will of the late Mr. John Innes, who died at the Merton Manor House on August 2 last. Those who have the welfare of scientific horticulture at heart will rejoice to hear of this good news. The bequest is a munificent one, and will have the effect, it is earnestly to be hoped, of placing this most important phase of horticulture on a sure foundation. No such bequest has been made in the history of horticulture in this country, and it is made for the furtherance of one aspect of horticulture which it is almost impossible to develop through a want of financial support. We shall await further news of this welcome bequest with great interest. The late Mr. Innes lived in the house shown in the illustration. This will probably be the residence of the students.

Begonia gigantea carminata.—For winter flowering this is one of the best of Begonias. I recently saw a batch of it growing in a plant stove in the garden at Corhampton House, and a gorgeous display of rich carmine colour they made. The plants were 15 inches high, well clothed with foliage, and carried from six to eight trusses of bloom. The pots were only 5 inches in diameter, rendering the plants all the more useful for decoration in vases. Mr. Cawte, the gardener, said it is one of the easiest plants to grow, and is very serviceable, the flowers lasting quite fresh a long time. The plant is easily increased from cuttings in spring in bottom-heat.—E. M.



MERTON MANOR HOUSE. (The residence of the late Mr. Innes.)

Sweet Pea Scarlet Gem.—Not only is this new variety brilliant in colour, but it is highly refined in shape, having a smooth, erect standard, and it is also a good grower. As far as my experience goes, richly coloured Sweet Peas do not produce so many flowers on a stem as do the paler coloured varieties, but my observation may be somewhat limited. It is something to get such a brilliant glow of colour, though report states that Henry Eckford has in reserve two or three varieties, also brilliant in tint, but decided improvements. The possibilities of the Sweet Pea are very great, and though wonderful developments have been reached, the ideal flower has yet to be obtained. Our ideals recede as we attempt to realise them.—R. D.

The most popular tints in Sweet Peas.—White is certainly a colour in Sweet Peas which attracts the popular taste, so do shades of pink and rose, a group to which valuable additions have been made of late. Crimson also is a colour for which preferences are shown, inclusive, of course, of bright scarlet varieties. Blue to mauve are favourite tints, and there is plenty of room for a good blue Sweet Pea, especially of that lovely tint of blue found in what is popularly known as Lord Anson's Blue Pea; bright and attractive shades approaching chocolate are much esteemed also. There is always a run on novelties, and raisers are fortunate in obtaining very pleasing novel shades of colour. Delicate shades of colour appear to be most esteemed for table decoration. It is a peculiarity of a very few varieties to produce seeds which are both dark and light. Mrs. Sankey is a case in point, but the greatest purity appears to be found in the blooms produced from light seeds.—R. D.

A great show of Christmas Roses.—The finest batch of Christmas Roses (*Helleborus niger altifolius*) I have seen for a long time was in the gardens at Corhampton Park, near Bishop's Waltham, during the present season. Twenty-four plants growing in a cold frame on an eastern border began to open their blossoms a fortnight before Christmas Day, and have continued ever since, when, until February 3, 1,000 blossoms had been cut from these roots, an average of just over forty to a clump. The blooms were large, with extra stout stems, and of the purest white. Of course the number of blossoms is not extraordinary for large clumps, but these are not large clumps. It is but an ordinary two-light frame in which they are growing, but it is the extremely handsome blossoms they produce annually that is remarkable. Instead of removing the frame directly the flowers are gathered and exposing the plants to cold winds when making their new growth, the frame remains until new growth is made, which is all the more vigorous and healthy. The plants are never allowed to suffer for want of water at the roots, and are a credit to the gardener, Mr. F. Cawte. The variety *altifolius* is much finer in every way than the ordinary *H. niger*, that the wonder to me is more of it is not grown.—E. M.

A new Begonia—Triomphe de l'est.—The popularity that Begonia Gloire de Lorraine has attained serves to direct attention to any other variety from the same source, such as that at the head of this note, which is now being distributed by MM. Lemoine et fils of Nancy. From their catalogue the following few curtailed particulars may be of interest: This new comer is a near relative of Begonia Gloire de Lorraine, raised by us a dozen years ago. It is a seedling from *B. socotrana*, fertilised by a Begonia unknown, not that the crossing was produced by chance, but owing to the numerous attempts made each year at crossing *B. socotrana* it is impossible to indicate the male parent. The new variety is of rapid growth, the plant naturally forming a branching tuft, clothed with ample leafage. The inflorescence is much branched, and the male flowers, each with four petals, are of a satiny rose tint, and a

succession is kept up from January to nearly June. The buds are carmine-red in colour, and as ornamental as the flowers. It is later in flowering than Gloire de Lorraine. There are no female flowers. This variety was shown, on April 14, 1904, at a meeting of the National Horticultural Society of France, and was given a certificate of merit.—H. P.

A new London park.—Lovers of Ruskin, as well as of open spaces, are making a determined effort to secure for South London another public park, which shall serve to perpetuate his memory and at the same time save from the builders' hands another "lung" for London. On Denmark Hill there stand twelve large houses comprised in a beautiful and well-timbered estate of about 24 acres, which has already been consigned to the builder for the erection of the never-ending villa residences, but which, with its natural lake, it is hoped to save for the public; £50,000 is the fixed purchase price of the land. It is hoped when half this has been raised that the London County Council will look with favour on the project, and do as

but there are thousands of bright yellow flowers. It is a puzzle to me how fertilisation is effected. The two stamens are situated about half-way down the tube of the corolla, and about four or five millimetres below the style, which is, in many cases, two millimetres longer than the tube of the corolla. It seems to me to be a plant requiring the aid of insects in its fertilisation, but there are no insects to be seen at this time of the year. On January 22, as there was some sunshine, I watched the plant for about four hours, but no insect paid it a visit. At the same time I found the oblong anthers had split and pollen grains were sticking to the stigma in many flowers. The brilliantly coloured flowers, although destitute of scent, are fitted to attract insects, and the form of the flower seems adapted for their visits. But there are no insects! Can anyone offer an explanation? The plant is beautifully figured in the *Botanical Magazine*, lxxviii., tab. 4,649.—JOHN G. MCKENDRICK, *University of Glasgow*, in *Nature*.

Double Primroses.—For a long time Mr. P. Murray Thomson, S.S.C., the well-known



VIEW IN THE PROPOSED RUSKIN PARK.

they have done in other similar cases, viz., provide the remainder of the purchase money. Although the London County Council naturally have promised nothing in the matter, it is felt that they must realise the value of this triangular-shaped estate, with its frontage of about 1,050 feet on Denmark Hill and its park-like land, and approve of its acquisition. In memory of Ruskin, who once lived there, it is proposed to call the new park Ruskin Park. His desire that the natural beauty of Denmark Hill should remain unspoiled, and his numerous allusions to the vicinity render it an ideal memorial. As an augury of the success of the movement it was pointed out to a number of sympathisers of the movement who recently went over the estate that, without any public appeal, about £3,000 had already been raised.

Fertilisation of Jasminum nudiflorum.—This well-known plant, in accordance with its usual habit, has been flowering in my garden at Stonehaven, Kincardineshire, since the third week in December, 1904, and amidst frost and snow and cold winds. There are no leaves,

secretary of the Royal Caledonian Horticultural Society, has been experimenting in the hybridisation and cross-fertilisation of plants. More recently he turned his attention to the Primroses and Polyantheses, and a curious result, in the shape of double flowers, has arisen, not, as one might expect, from the direct progeny of double flowers, but from the progeny of these again. Mr. Murray Thomson fertilised a single white Primrose with pollen from the double *P. platypetala*, and the resulting flowers were pink Primroses and Polyantheses, all single, and none white. Seeds were saved from these single flowers, and in the garden of Mr. P. Neill-Fraser of Rockville, Edinburgh, a number of plants were raised from these latter seeds, given to Mr. Fraser by Mr. Murray Thomson. A number of white flowers have appeared among these, but the majority are dark-coloured, and include several double or semi-double flowers. These are mostly large, and, while a little more doubling would be preferred by many, are pretty and interesting flowers. They are particularly interesting, as showing what may yet be done

in raising double Primroses and Polyanthuses to take the place of some of the older ones, which do not gain in vigour as time goes on, while as a contribution to the study of the Mendelian theory they are valuable. I received flowers of these double Primroses from Mr. Murray Thomson last year, but mislaid the notes on their origin which accompanied them. I have some of these seedlings, but none of mine as yet show any doubling, although, as all did not flower, some doubles may yet appear this spring among my plants.—S. ARNOTT, *Carsethorn, by Dumfries, Scotland.*

Rainfall in the Cheshire District.—The rainfall for the year ending 1904 has been a favourable one in this locality as compared with the previous year, 1903, when the total readings were 34.97—a record, rain falling on 212 days; wettest month, October, 5.98 being registered, the heaviest fall in twenty-four hours being on October 27, when 1.27 of rain fell; highest maximum temperature in the shade, 84°, July 2; lowest mean temperature, 17°, January 14. Diameter of rain gauge, 5 inches; height above ground, 1 foot; 114 feet above sea level. The readings for 1904 are as follows:

Month.	Total depth.	Greatest fall in 24 hours.		Number of days with '0.1 or more recorded.
	Inches.	Depth.	Date.	
January ..	2.71	.49	12 ..	21
February ..	3.05	.78	3 ..	20
March	1.60	.33	29 ..	14
April	2.08	.36	22 ..	21
May	2.18	.44	27 ..	20
June	0.64	.18	24 ..	10
July	1.58	.47	25 ..	16
August	4.26	.85	21 ..	20
September ..	1.39	.50	30 ..	7
October	1.04	.53	16 ..	9
November ..	2.09	.53	8 ..	17
December ..	2.55	.38	15 ..	20
Total..	25.17			195

As will be seen, August was the wettest month in the year, also credited with the greatest fall in twenty-four hours—on the 21st inst.; 0.1 of fog was registered on November 16, December 24 and 26 respectively, most unusual occurrences. The highest maximum temperature in the shade was 90° on August 3; lowest mean temperature, 9°, November 24.—W. H. JENKINS, *Wythenshawe Gardens, Northenden, Cheshire.*

A note from the Riviera.—The drought is so very severe that one has no pleasure in the garden, especially after that fatal frost. No doubt there are a few things like Sweet Pea Earliest of All that are extra welcome at this season. Snowdrops and Sweet Peas are a curious combination.

Winter Aconites in Midlothian.—In a Midlothian garden where note is taken of the flowering date of certain flowers the Winter Aconite bloomed this year for the first time on January 29, ten days later than in 1904.

PRIZES FOR GARDENERS.

AWARDS IN JANUARY COMPETITION.

I HAVE pleasure in reporting on the recent competition on the subject of trees and shrubs. A large number sent in replies, and though the numbers are certainly satisfactory, it is still more so that the work of the competitors should have proved as good as it has done. At least sixty of the papers deserved and received exhaustive examination, and I do not think there were half a dozen really bad papers; moreover, the first twenty-five were so close together that I should have been very diffident of my powers to weigh the rival claims, where the correctness of so many of the answers was a matter of opinion, had I

not been fortunate enough to secure the co-operation of two experts to help me in my difficult task.

I award the first prize to Mr. James Sex, gardener to Colonel Biddulph of Grey Court, Ham, Surrey, who obtained 120 marks out of a possible 156. The second and third prizes must be divided between Mr. A. E. Speer of Sandown Lodge, Esher, Surrey, and Mr. Thos. Nelson, The Gardens, Garroch, New Galloway, N.B., who each obtained 112 marks. The fourth prize must be shared by Mr. A. Longhurst, gardener to Mrs. Metcalf of Gloucester House, Stonebridge Park, Willesden, N.W., and the gardener at Hutton John, Penrith, Cumberland (who does not give his name), both of whom gained 109 marks. Mr. J. S. Upex (108), Mr. G. H. Head (106), and eleven others whose marks reached or exceeded 100 deserve honourable mention. I shall venture to give two words of advice to any possible future competitors:

(1) Be very careful to observe closely the conditions of the questions, e.g., many marks were lost in replying to questions I. and X. by those who mentioned trees and creepers when shrubs were asked for, and in answering question IV. many overlooked the fact that *cheapness* was an essential condition.

(2) Answer as succinctly as is consistent with completeness, and do not make irrelevant displays of knowledge. Heated praise and minute details of the appearance of particular plants, explanations of the meaning of the word "dioecious," and elaborate accounts of the best means of moving large trees, are instances of uncalled-for matter which was introduced into some of the papers, and which would have been better omitted.

Below I enclose a copy of answers to the paper, which, in the opinion of my colleagues and myself, would deserve nearly full marks. It is hardly necessary to add that in many cases the names of other plants would answer the questions equally well. I hope the list may interest some of your readers who have not competed, and in any case it will enable the competitors to sit in judgment on their judges.—Yours faithfully, VICARY GIBBS.

I.—*Pyrus japonica*, *Hamamelis*, *Ribes*, *Chimonanthus fragrans*, *Laurustinus*, *Forsythia*, *Spiraea Thunbergii*, *Daphne Mezereum*, *Chlorodendron trichotomum*, *Erica mediterranea*, *Jasminum nudiflorum*, and *Ligustrum Quihoui*.

II.—(1) All trees that gum, such as Cherries, Apricots, and, in a lesser degree, Magnolias. (2) Most of the *Cupressus retinospora* class, which actually benefit by pruning, and Yews.

III.—*Spiraea laevigata*.

IV.—*Spiraea Douglasii* (nut brown), *Salix vitellina rubra* or *Cornus sanguinea* (crimson), *Salix vitellina* (orange), *Leycesteria formosa* or *Kerria japonica* (bright green), *Salix purpurea* or *S. daphnoides* (purple), and *Sambucus nigra aurea* (grey).

V.—(1) *Pyrus Aucuparia* (Mountain Ash). (2) *Lycium* (Box Thorn, Tea Tree), or *Rhus Toxicodendron* (Poison Oak, Poison Ivy).

VI.—Willow, Poplar, *Aucuba*, *Skimmia*, *Garrya elliptica*, and *Salisburia adiantifolia*.

VII.—Larch, *Pseudolarix*, *Taxodium distichum*, and *Salisburia adiantifolia*.

VIII.—Best: Beech, Birch, *Ulmus montana*, Mountain Ash, Oak (having regard to the roots), Lime, and *Ulmus campestris* (with regard to the heads). Worst: Spanish Chestnut, Horse Chestnut, Robinia, Lime, *Ulmus campestris* (with regard to the roots), and Oak (with regard to the heads).

IX.—Most injurious: Beech, Ash, Elm, Larch, and Lime. Least injurious: Birch, Oak, Robinia, Mountain Ash, and Maple.

X.—*Pyrus japonica*, *Ribes*, *Forsythia*, *Spiraea*, *Weigela*, *Viburnum*, *Philadelphus*, *Veronica*, *Laurustinus*, *Deutzia*, *Rhododendron*, and *Genista*.

XI.—*Syringa*, *Hibiscus*, *Caryopteris*, *Ceanothus*, *Rhododendron*, *Perowskia*, *Cercis Siliquastrum*, *Buddleia variabilis*, *Desmodium*, *Hedysarum*, *Magnolia obovata*, and *Solanum crispum*.

XII.—(1) Horse Chestnut, Lime, Birch and Oak. (2) *Cupressus lawsoniana*, *Pinus austriaca*, *Juniperus*, *Quercus* and *Ilex*. (3) *Aucuba*, Holly, *Laurus tinus*, and *Cotoneaster microphylla*.

XIII.—In a general collection of conifers two methods have to be adopted for the production of new leaders. One method consists of cutting back the broken or otherwise damaged portion below the injured part, dressing the wound with tar, and stopping or shortening the points of the two uppermost whorls of branches. By this means buds are formed on the trunk immediately below the injured part. After these buds have produced shoots a few inches long the strongest and best placed should be selected to form the leader; the others rubbed out. *Sequoias*, *Araucarias*, many *Abies* and *Piceas*, and, in fact, most trees whose branches naturally assume a horizontal or slightly pendulous habit, should be so treated. The other method consists of cutting back and dressing the injured part in the same way as the former, afterwards tying up the strongest branch from the uppermost whorl to a stake, which stake should be higher than the new lead when in a vertical position, so as to prevent birds lighting on it, secured with soft tying material to the trunk, afterwards stopping the points of the remaining shoots in the whorl to throw additional strength to the selected branch. Conifers with strong, upright-growing branches, such as *Pines*, *Ginkgo*, and occasionally *Abies* and *Piceas*, respond to this treatment. Larch may also be dealt with in this manner.

Note.—In the second method, where the specimen is too tall for a stake to be used, a Bamboo rod should be tied with stout bast to the upper part of the stem, and by the time it has done its work—by getting the lateral to assume the place of a leader—the bast will have rotted and the cane fall down by itself.

THE FLOWER GARDEN.

THE SWEET VIOLET.

(Continued from page 101.)

THE OLD NEAPOLITAN.—For a beautiful lavender colour and exquisite fragrance I do not think there is any variety that is finer than this, but its constitution is so delicate and the number of flowers produced on a plant so few that it is now rarely grown in this country.

Mrs. Astor.—This is a comparatively new variety and a pretty novelty. It is of the same type as Marie Louise, but the petals are of a bronzy blue rich shade of colour, which is most distinct. It is very sweet, and should be included in every collection.

WHITE VARIETIES.

The only one of these worth growing in my opinion is Comte de Brassa, a double variety, and when well grown is very beautiful. It should be treated like the other double varieties, and grown in poor soil in a glass frame for winter flowering. The single white is liked by many.

INSECT ENEMIES.

Red spider is the great enemy of the Violet. The most effective way of keeping the plants free from its ravages is to prevent its first attack on the plants, and this is best effected at propagating time by dipping the young plants, at the time they are detached from the parent, in an emulsion of Gishurst's Compound, as per directions on the box, and by syringing in the summer if necessary by a weaker solution of the same insecticide, especially on the under side of the leaf. To grow Violets successfully they should be replanted annually as directed above.

OWEN THOMAS.

COLOUR COMBINATIONS WITH ANNUAL FLOWERS.

It was hard to believe, when I looked at my sleeping garden a few days ago, that in a month's time we must be arranging for our spring and summer bedding, if that has not already been decided on. Even if we planted our red and white and pink Daisies, and Pansies, and other combinations of pretty and useful hardy plants, we must sow many annuals this month if we would fill our mixed borders well. There are always a few beds to be planted irrespective of the borders, and these are much more effective if arranged with due regard to colour. Two long narrow beds, cut in the turf on either side of a gravel path, are filled for early spring work with pink Hyacinths and Forget-me-nots. These bloom together at first, and by the time the Hyacinths are out of flower the Forget-me-nots are tall enough to hide the unsightly fading foliage of the bulbs. Meantime Phlox Drummondii, an annual too little used, is sown in boxes, for the refilling of these beds, and a fine show of this charming flower lasts all the rest of the year; indeed, I generally gather it until it is absolutely necessary to empty the beds in November.

The centre of each seedling Phlox is pinched out, and directly the plants are old enough they are carefully pegged down. The pegging process must be attended to every week, as they are apt to become rampant, and it is difficult to mow the grass under the overhanging sprays. A small bed of mixed Iceland

Poppies—orange, yellow, and red—with an edge of *Nemophila insignis* is charming. The *Nemophila* is one of the oldest and prettiest of our annuals, but for some reason I do not think it does as well as it used.

I can remember in our Lancashire garden, in a cold clay soil, the most brilliant effects were produced by using it with many other small things, the common yellow Primrose being one. It is not generally known what a good subject *Nemophila* is for forcing. In the "Florist and Pomologist," 1816, page 147, instructions are given for its treatment as a pot plant. The self-sown plants seem to do best, which points to the value of autumn sowing; at any rate, severe thinning should be insisted on. Another pleasing combination is Sutton's dwarf pink *Clarkia* and *Collinsia candidissima*, with *Phacelia campanularia*. The last is a little difficult to manage if sown in the open, as the slugs are particularly fond of it when it first appears above the ground. It is the same height as the *Collinsia*, and has a longer period of flowering than the *Nemophila*. *Phacelia* is beautiful placed next to the orange dwarf *Nasturtium*, in the foreground of the mixed border. Plant annual Larkspurs in masses—blue, white, and red together—they fill up little bare spaces charmingly; but as they are slow-growing things they should be sown early. Dwarfs, for that reason I suppose, seem coming into fashion, and we shall soon have a miniature of each plant and annual. The dwarf Sweet Peas were, to my mind, never a real success—one could not reconcile one's self to any distortion of so precious a flower—and I believe they require a warm summer to produce the mass of flowers to make them really effective. I gave them up after one trial, but I must confess the season was not propitious. I find a good plan in sowing annuals in mixed borders is to start with some sort of colour scheme. You know what perennials you have to a certain extent, and you can be sure of varying the colours, and avoiding a discord, if I may use the word, by placing labels at useful intervals marked yellow, blue, red, white, pink, mauve, or as you wish, and when you come to the moment of planting out or sowing annuals you have some sort of rule to go by. My own borders are so extensive that unless I make a little plan I can keep no kind of order, and Lilacs and reds and yellows get next each other with most trying results.

AUGUSTA DE LACY LACY.

(To be continued.)

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

HARDY CYCLAMENS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The article on this subject is not very clear (see page 37 of THE GARDEN of the 21st ult.). I have always taken considerable interest in hardy Cyclamens. The species are few, even with the recent additions offered in seedsmen's autumn bulb catalogues. I am not acquainted with *C. cilicium* and *C. libanoticum*. I am trying with *C. africanum*, *C. Coum*, *C. europæum*, *C. neapolitanum*, and *C. repandum* to find how they will succeed at Kirn, on the west coast of Scotland. If I have fairly good success I will complete the collection.

C. europæum flowers in summer. I have seen hill-sides of this species in full bloom in Italy.

C. Coum and *C. ibericum* I take to be geographical species. The former has a roundish green leaf; the latter has a heart-shaped leaf, with a silver zone. The two species flower at the same time in the autumn, and on rockwork are beautiful. Sun and winds should be avoided.

C. neapolitanum and *C. africanum* I should class as geographical species. The former I have seen growing on the banks, under hedges, about Florence. *C. africanum* has larger leaves than *C. neapolitanum*, and is not so hardy as the last mentioned. Formerly these were called *C. hederæfolium* till Mr. Baker in his monograph corrected the name. The trade have accepted the correction. Autumn flowering.

C. repandum syn. *vernum*.—This species is figured in Sweet's "British Flower Garden" under the name of *C. hederæfolium*. Mr. Baker in his monograph says *hederæfolium* is the correct name. I am sorry to notice the trade has not accepted the correction. Flowers about April. I take it the plant figured in the plate of THE GARDEN is *C. neapolitanum*. The flowers, the leaves, and September named as the time of flowering all point to my surmise; at least, I do not know of any other hardy Cyclamen that would give the mass of bloom in September.

I take it that "Y. Z." writes from knowledge that "a fairly moist soil" suits the species of Cyclamen figured. I cannot call to mind how I treated *C. neapolitanum*, but the bed where I grew *C. europæum*, *C. Coum*, and *C. ibericum* had some inches of stones under them. The situation was sheltered and under tall Elm trees. The grass was allowed to grow, so that the plants naturalise well and would be interesting subjects to plant in shady walks. The plants cannot bear sun or cutting winds.

My teacher in handling hardy Cyclamens was the late Mr. James Atkins of Painswick. Once he told me he had visited every known habitat of the Cyclamen family. When he visited London most of his time was spent in the British Museum reading-room hunting up Cyclamen literature. Willdenov he was wont to call "Wild-enough." He had a very poor opinion of the author. If anyone associated *C. Atkinsi* with *ibericum* in his presence you would get no more knowledge from him on that visit. I cannot say whether Mr. Atkins raised *C. Atkinsi* from seed or if the original bulb was collected. He sold it to one of the Hendersons, and he was angry at their offering *Atkinsi album*, *roseum*, and *rubrum*, claiming specific rank for *C. Atkinsi*. One might say that Mr. Atkins was crazed on Cyclamen. He grudged no amount of labour and research to find all that could be found about his favourite flower. On the occasion of one of his visits he told me he had profited by one who had written an article on Cyclamens, and from it Mr. Atkins inferred he had some special knowledge of the family. After a great deal of hunting he found he had emigrated to Canada. Following up his cue he got into correspondence with him, and the gentleman said he had written something about Cyclamen, but really he had no knowledge of the family. This reminds me of a similar instance that happened to myself in Spain when I was pursuing my researches after *Daffodils*. I was told of a man who knew all about the family. I could not get his book; it was out of print. I followed up the man into France, and when I found him I told him my motive in calling, but he said: "As a youth I wrote an essay on the family and got a prize, but I knew nothing of the family." *Galanthus Imperati* was introduced by Mr. Atkins, who sold his stock to me. It was the largest-flowered species I have seen. The flower, including the ovary, as well as I can recollect, measured $1\frac{3}{4}$ inches. Returning to Cyclamen, I recollect the pleasure I got from the foliage after the flowers were past of *C. neapolitanum*, and I thought what a grand winter bed the plant would make if associated with *Scilla sibirica* or *S. bifolia*. *Chionodoxa* at that time

had not been introduced. I found, however, a severe winter disfigured the leaves; still, in a well-sheltered corner all might be well. I would say, Be cautious about the "fairly moist soil." Plants that grow on dry banks are apt to resent moist ground. In Palestine I found *Cyclamen persicum* in great abundance on dry banks fully exposed to the sun. Some were fragrant, and others not. I sent some roots to my sons to give to raisers of new varieties.

PETER BARR, V.M.H.

AN INTERESTING PARASITE

(*LATHRÆA SQUAMARIA*).

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The above-named plant is the common Tooth-wort of our British flora, and is nearly related to the *Orobanches* or Broom-rapes. It is a parasite found growing on the roots of trees, especially the Hazel. It is well worthy of a place in the garden, and would be a welcome addition to the wild garden, a position which would suit it admirably if a suitable host plant could be found for it. The colony from which the accompanying photograph was taken is growing on the roots of the Hazel near the margin of a pond in the Cambridge Botanic Gardens. It has developed from a piece which was planted among the roots of its host eight years ago and has become thoroughly established. The rootstock is fleshy and creeping, and is densely clothed with thick fleshy scale leaves, which are said to be specially adapted for trapping small insects, from the dead bodies of which the plant is supposed to obtain some of its nitrogenous food. The whole structure below ground is almost pure white. The flower-spikes, which appear in spring and early summer, are erect when fully developed, from 6 inches to 10 inches high, and are covered with scale-leaves which gradually merge into bracts. The flowers are numerous, the style projecting beyond the corolla, the whole spike being of a very pale flesh colour. Near by is a fine mass of *Lathræa clandestina* growing on the roots of the Willow, which in early summer produces huge cushion-like masses of its purplish flowers. They seem to grow best in a fairly moist situation, and are not difficult to establish if a suitable host plant is found, either by transplanting a piece of the rootstock or from seeds which can be scattered among the roots near the surface.

E. J. ALLARD.

Botanic Gardens, Cambridge.

NON-BURSTING CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In answer to the question on page 96 about non-bursting Carnations, I am afraid the percentage of these varieties also possessing hardiness, free-flowering, and a good vigorous habit is small.

Carnations are influenced by a difference of soil, season, and situation. I remember one of my men who went to a garden in the Midlands telling me that the variety Mrs. Reynolds Hole very seldom burst with him; here it is one of the worst offenders. I have grown few of the newest sorts, but give a selection of some older ones that have been tried and not found wanting. They may be of service to "W. I."; they are emphatically non-bursters here. Countess of Paris, still one of my best, has a very long season; it bears the earliest and latest (occasional) flowers, very free; reported a poor grower from some parts, but this is probably the fault of the cultivator. Having rather wiry foliage it requires a long rooting season, and should be layered as early as possible. Cassandra (I fancy there are two varieties under this name) is similar with me in colour to Countess of Paris, but larger and later. Mrs. E. Hambro and Diamond are two good whites, the first-named a very pure symmetrical flower; Diamond heavier in build with large petals. Miss Audrey Campbell is my best yellow, and Carolus Duran and a seedling the best buffs. Boadicea is a very fine pink; there is just a little tendency to split in this, but I had to discard Ketton Rose (quite a non-burster), as the latter was decidedly a poor grower. Black Bess is similar in colour to Mephisto and Uriah Pike, and better in constitution; it is the best very dark variety I have tried. Thoroughly good scarlets are few and far between. I am still growing Hayes' Scarlet and a sort that came to me under the name of Mars. A capital seedling of this shade, together with other good things, was lost in the February of 1895. The above, as I have said, combine all the essentials of a first-class border Carnation. Newer varieties as introduced should do the same before they are allowed to supersede the old. Superiority in size and form of flower alone are not sufficient.

Claremont.

E. BURRELL.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I read a note in reply to a question in your issue of the 11th inst. from "W. I." about "Carnations which do not split their calyx." Your correspondent does not say if for indoor or border cultivation, neither what colours or varieties are required. I therefore give a few of various classes and colours which can be depended upon, although there may be an occasional split calyx, according to the season. Self: White—Much the Miller, Condor, Mrs. Eric Hambro, Cordelia, and Trojan; blush—Eva, Scarlet Etna, Calisto, and Mrs. E. S. Diver; rose—Bomba (scented) and Barras; pink—Mrs. Guy Sebright and Exile; terra-cotta—Benbow; purple—Helen; yellow—Germania, Cecilia, Mrs. M. V. Charrington, and Britannia; dark claret—Nubian, Uriah Pike (scented). Sir Bevy's, and Agnes Sorrel. Fancies: Yellow grounds—

Amphion, Buckhardt, Henry Falkland, Czarina, Hidalgo, and Charles Martel. Other fancies: Ormonde and Ivo Sebright. Yellow ground Picotees: Lady St. Oswald, Lord Napier, Bachelor, Mrs. R. Sydenham, &c. I will not mention numerous white ground Picotees, as "W. I." may not be interested in them. Let him come to the Carnation Society's show at the Horticultural Society's hall in July and select for himself a further lot.

Limpfield.

E. CHARRINGTON.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In reply to the question "Carnations that do not burst their calyx" in THE GARDEN of the 11th inst., page 96, the following twelve border Carnations and Picotees will be found reliable. The flowers do not burst and the plants grow vigorously, except perhaps Germania. They are also exhibition varieties of the first class. Much the Miller and Hildegard, white; Germania or Almoner, yellow; Lady Hermione, rose; H. J. Cutbush, scarlet; and Agnes Sorrel, maroon. Fancies: Richness, Charles Martel, and Henry Falkland. Yellow ground Picotees: Lady St. Oswald, Gronow, and Gertrude.

Woodside Park, N.

R. M.

MELON CULTURE AT FARNHAM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Whilst a recent article on "Melons and How to Grow Them" was in THE GARDEN admirably illustrated by a picture of Melons as seen any summer in one of Mr. Mortimer's houses at Farnham, the article makes no mention of the Farnham methods of culture. Mr. Mortimer devotes several long span houses annually to Melon culture. Grown in some cases as trials, inclusive of many varieties, some of first-class varieties for seed production, and in few places, if in any, are Melons more successfully produced. Sometimes a house has Melons on one side and Cucumbers on the other. All the houses are comparatively low spans. Whether there be, as in some cases, soil beds on either side or broad stages, Melons are grown in raised troughs elevated on wood blocks at either side over the pairs of pipes which run along near the walls. These troughs are about 20 inches wide, and consist of stout, open trellis bottoms with movable close board sides, making each trough inside some 6 inches deep. When fixed in position the coarser material of the compost used, always containing turfy and fibrous matter, is laid at the bottom, and on that the soil, which is rather elevated or rounded in the centre, thus making there a depth of some 7 inches. The arrangement is of such a facile nature that as two crops are grown in the house each year no sooner is the first crop cleared than the soil is removed, the troughs taken out, well washed, and lime whitened, the house cleansed and fumigated, then the whole process is gone over again, fresh soil being used. In this way all chances of fungoid or insect trouble is avoided. The plants are commonly planted out 15 inches apart when they have made their first one or two rough leaves. One never sees here leaves eaten up with spider and thrips or with mould. The houses are not swamped, but kept rather dry, and have ample light and air. Pity it is that Mr. Mortimer's place is so remote. A visit in summer is well repaid.

A. D.

SCHIZANTHUS WISETONENSIS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—We agree with your correspondent "R. D." that this plant should be more grown. We should, however, like to emphasise that the earlier the sowing the greater satisfaction can be obtained. When we introduced this plant a few years ago we found that the plants commencing to flower late in the summer and during the hottest time of the year suffered somewhat in



A BEAUTIFUL BRITISH PARASITE (*LATHRÆA SQUAMARIA*).

(This is often found growing upon the roots of the Hazel Nut, as shown in the illustration.)

consequence, whereas those flowering in the early summer have a longer flowering period, and, in fact, remain in bloom some ten or twelve weeks in a beautifully fresh condition.

Enfield, N.

HUGH LOW AND CO.

LOVE-IN-A-MIST.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Most gardeners are acquainted with that beautiful annual flower commonly called Love-in-a-Mist (*Nigella damascena*), but probably not so many have noticed the curious form and quaint beauty of the seed vessels. I consider them so ornamental that I have sent you a drawing to show their character. If you are able to publish it it may help to popularise this annual, which is very easily grown, and yields a rich harvest of flowers and fruits.

Surbiton.

J. H. E.

CHINESE CABBAGE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In reply to a correspondent ("F. M.") in THE GARDEN it is called Pe-Tsai. The only seedsman who sells it, as far as I know, is J. M. Thornburn, 36, Cortlandt Street, New York. I have grown it, and the plant much resembles a Cos Lettuce in growth, the green having the appearance of a Turnip more than a Cabbage. It will not stand frost, and is also very liable to bolt to seed before it hearts in fit to eat. There is nothing remarkable about its quality; it tastes like Spinach. It should be grown in damp and shade. There are many better vegetables to take its place. E. J. VOKES.

Kingsworthy, Winchester.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In the English edition of "The Vegetable Garden," by MM. Vilmorin-Andrieux, there are two varieties of Chinese Cabbage (*Brassica sinensis*), mentioned on page 147. These seem to be what your correspondent "F. M." is referring to (THE GARDEN, February 11). CYRIL WALKER.

Funtington Vicarage, Chichester.

APPLE PEASGOOD'S NONSUCH.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In THE GARDEN for January 21 (page 42) "A. D." in writing of the parentage of Apples, describes Peasgood's Nonsuch as "so worthless a variety so far as quality is concerned." This is rather strong language, and I wish to ask if this judgment is to be accepted. Others that we have been accustomed to regard as authorities do not express the same views as to the quality of this well-known Apple. For instance, the "Fruit Manual" says: "Flesh yellowish, tender, very juicy, with an agreeable acid flavour. A fine culinary or dessert Apple"; "British Apples," by A. F. Barron, "First quality"; George Bunyard and Co., "Its good qualities and excellent flavour recommend it"; J. Cheal and Sons, "Good in every way"; James Veitch and Sons, "A very valuable variety." Now are these authorities combining to foist off on the public a worthless article, for if it is worthless they know it as well as "A. D." or is the latter mistaken? Belper.

J. FRANCIS.

FRUIT CULTURE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am highly pleased with the article on "Summer and Winter Pruning of Fruit Trees," which your correspondent has dealt with in a very businesslike manner. I am afraid the pruning of fruit trees is much neglected, and I

feel sure, if the knife were used more in summer, not only would it reduce the work in winter, but we should see greater results from our labours. I have, from three years' experience of an old renovated orchard, proved the value of summer pruning, and if your readers had seen the orchard referred to three years since, and had seen the same during the fruiting season of 1904, they would have been bound to acknowledge that it was then bearing a marvellous crop of fruit. This I attribute largely to the

curious dwarf spiny-leaved Oak, of which I forwarded specimens for identification. It grows low and thick, like a Berberry, bears quantities of Acorns, is evergreen, and has leaves just like Holly. These qualifications seem to point it out as a perfectly ideal bush—it seems odd to be calling an Oak a bush, but it is one—for planting in game covers. It would be interesting to know if anyone has tried it, and if it stands our climate as the Ilex does.

C. J. CORNISH.

MARGUERITE CARNATIONS AS CUT FLOWERS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I see in THE GARDEN of the 28th ult. a note about Marguerite Carnations, by Mr. Charles Jones, in which he prefaces his remarks by saying that they are of great service for yielding cut flowers in autumn and winter. I should be interested to know if by this is meant that they have in Mr. Jones' experience proved satisfactory for any length of time after they have been cut and placed in water. There is no doubt that they are very effective and light when growing, and in this way most useful at the time of year when they bloom, but my experience of them (I have only grown

them once) in a cut state was most disappointing; the flowers soon closed up after they were arranged in water, and for this reason I have not grown them again. It would be interesting if others would give their experience of Marguerite Carnations as cut flowers.

St. Asaph, North Wales.

W. A. WATTS.

THE FRUIT GARDEN.

A VINERY AND FORCING HOUSE COMBINED.

SINCE the building of glass houses has been so much simplified and cheapened, it has become the custom among many to construct houses specially adapted to meet the requirements of the plants it is intended to grow, whether it be Grapes, Peaches, Melons, Strawberries, and other fruits, or flowers such as Orchids, Carnations, &c., so that the combination vinery has been practically lost sight of. In large gardens where glass houses are numerous this dual house may not be needed, but where glass accommodation is limited a house like this would be found most serviceable. At the Royal Gardens, Frogmore, there used to be a vinery of this description planted with Black Alicante Vines, and better crops than were produced in this vinery no one could wish to see. If the Grapes were not consumed by Christmas, those left were cut off and put into bottles of water in the fruit room, and the Vines turned out of doors through the front lights, these being taken off to allow the Vines to pass. The space between the uprights was large enough to admit of the Vines being carefully and gradually drawn out and secured to stakes in a horizontal line in front of the vinery, where they would remain until the end of the following April. They were then taken back to the vinery, often with new shoots on 2 inches or 3 inches long.

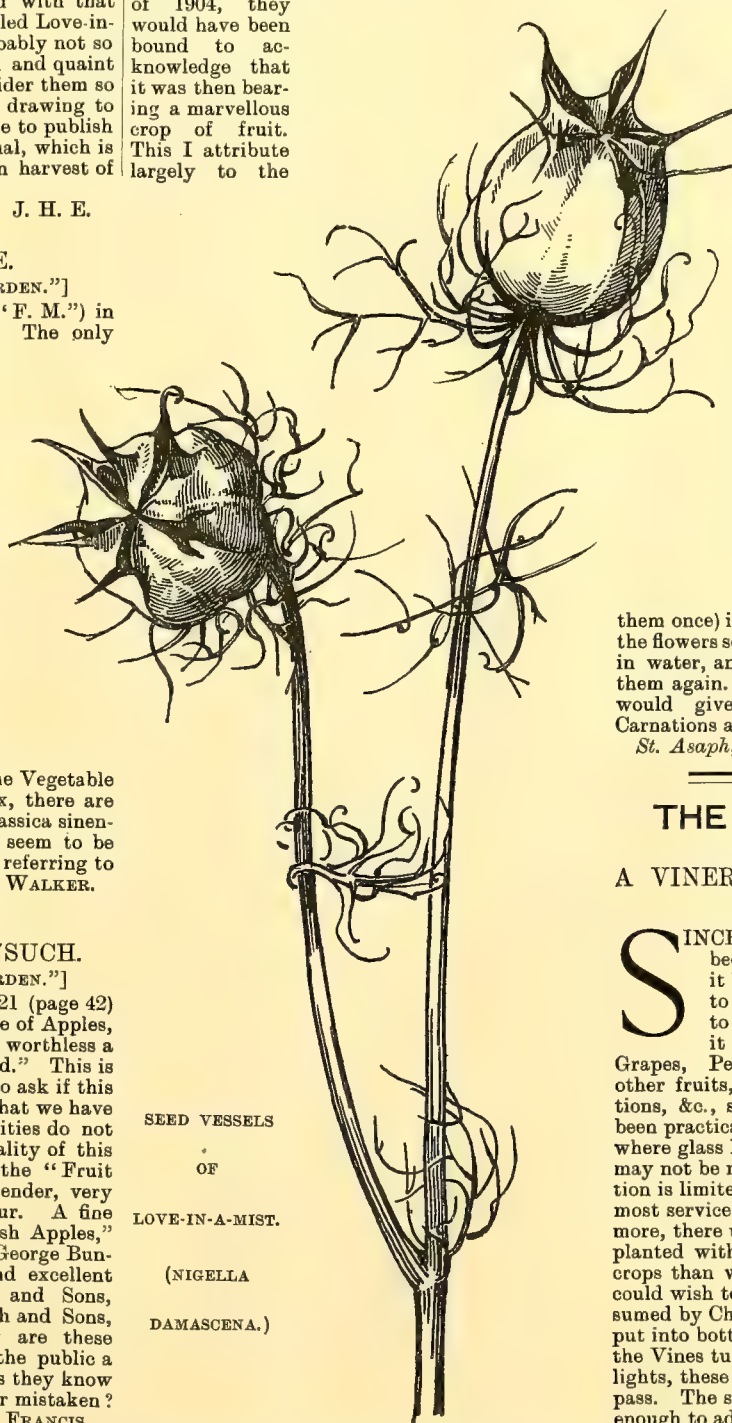
I need scarcely say that the work of taking the Vines back with this growth on required the utmost care in carrying out. As soon as they

attention paid to the summer as well as to the winter pruning of the trees. WM. R. PRINCE.
Antony House, Cornwall.

KERME'S OAK FOR GAME COVERS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am much obliged for the information kindly sent as to the name and habitat of the



SEED VESSELS

OF

LOVE-IN-A-MIST.

(NIGELLA

DAMASCENA.)

were secured outside, the portable lights were again put back, leaving the house empty and available for the growth of any crop the owner might wish to use it for the next few months. In the case under notice Strawberries in pots were invariably the first crop, followed usually by French Beans, also in pots, a portable stage being removed to accommodate these plants. In order to carry out this plan outside borders only should be used, and the Vines planted outside and taken in at the bottom of the lights, space for this purpose being left. The Vines while they remain outside are protected by mats, and in severe weather a good covering of littery straw or rough manure is added. T.

APPLE CHELMSFORD WONDER.

THIS is a very fine cooking variety, and only wants to become well known, when I am certain it will prove a general favourite with fruit growers. The fruits are of the Wellington type, very heavy and solid, bright yellow on the shaded side, dotted and streaked with red where exposed to the sun; they should be allowed to hang late on the tree, then they will keep sound until May. Our best fruits have been obtained from pyramid trees on the Paradise stock, but from the appearance of young standards on the Crab it will make a good orchard standard. Its cooking qualities are excellent. CHARLES PAGE.

Dropmore Gardens, Bucks.

TREES AND SHRUBS.

THE KENTUCKY COFFEE TREE.

(GYMNOCLADUS CANADENSIS.)

THIS is a very striking tree, owing to its distinct and handsome leaves, and in winter its peculiar half-dead-like appearance. The naked wood is almost destitute of small sprays, and the points of the branches are thick and blunt compared with almost any other tree. It is one of the latest of all to unfold its leaves in the spring. The leaves are sometimes as much as 3 feet long, and 2 feet across at the widest part. When of this size they impart quite a sub-tropical appearance to the plant, but it is only when they are young and vigorous that such massive leaves are produced, those on adult plants being much smaller. Even then the tree is of a very distinct type, which feature is heightened by the peculiar bluish green of the foliage. The flowers are not very ornamental, but, being so noticeable in other respects, it is, from its indifference to soil and situation, well worth the attention of the planter. Still, it grows more quickly in a good deep soil and a fairly sheltered position. Despite all this, however, it may be sought for in vain in most tree and shrub nurseries. The specific name of canadensis would imply that it is principally to be found in Canada; but it is, I believe, more plentiful in some of the States. From the fact that some of the early settlers roasted the Bean-like seeds as a substitute for Coffee, its popular name of Kentucky Coffee Tree is derived. H. P.

A GRACEFUL-BERRIED SHRUB.

(COTONEASTER PANNOSA.)

THIS Cotoneaster is a rather graceful and elegant growing species with arching stems of 2 feet or

3 feet long issuing from the main stem. As seen recently in a plant 4 feet high or thereabouts the growth was somewhat sparse. Throughout the length of these arching branches clusters of small oval scarlet red berries are produced from the leaf axils. The berries are similar in size and colour to the fruits of the white Thorn. It

effective in a mass, yet it forms a useful and interesting addition to the shrubbery. It also has the advantage of succeeding in very poor soils, where many shrubs would prove a failure. The flowers are inconspicuous, but during the latter end of the summer and throughout the autumn the white seed-cases are very showy. After they expand and reveal these seeds a pleasing contrast is formed. The best specimen I have seen of this shrub is growing in the gardens of Wistow Hall, Leicester, where Mr. Clark has everything to perfection; it is now fully 10 feet in height. When I saw this plant last autumn it was carrying immense quantities of fruit, and was quite worthy of the position on the lawn.

A. E. THATCHER.

EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, W.C.

DOUBLE CHINESE PRIMROSE (PRIMULA SINENSIS ALBA PLENA.)

Few plants give a better return than the one under notice when well cultivated, and yet it is not half as much grown as its merits deserve. Many have tried it and failed, not altogether because they did not understand its culture, but because they did not happen to have a suitable position for its propagation. Perhaps no better samples are to be seen than those that come into Covent Garden, and these market nurserymen would not grow it unless they found a ready sale either for the plants or for the cut bloom. It is doubtful whether any plant produces such a wealth of blossom as does this Primula from the middle of November until mid-April, a period that most will admit is when white flowers are always in great demand. It may be rightly called a "cut-and-come-again plant," as it continues to push up other trusses, and in a few weeks

is again as white as snow and the admiration of all who see it. Some may object to it on account of its short spikes when cut, but where buttonholes, sprays, or wreaths and crosses are in great demand it will be found invaluable; it is likewise of much service as a table plant when grown in 4-inch or even 5-inch pots, and we consider 5½-inch pots quite large enough for the finest specimens. Early in March we select the more robust of the plants, trim off the bottom leaves and all flower-spikes with a pair of scissors, and mound up well amongst the growths a mixture of finely-sifted loam and leaf-soil in about equal parts, adding a nice sprinkling of silver sand and some chopped sphagnum, mixing all



A GRACEFUL-BERRIED
SHRUB.

(COTONEASTER
PANNOSA.)

(Given an award of merit
by the Royal
Horticultural Society on
January 24.)

should make a pretty object when grouped freely, and standards of it would be very ornamental. The berries long retain their good colour, hence the value of the plant in ornamental gardening. E. J.

THE WHITE-FRUITED SPINDLE WOOD.

(EUONYMUS EUROPÆUS FRUCTU-ALBO.)

WHERE shrubs with ornamental fruits or seed-pods are appreciated this variety of the European Spindle Wood certainly deserves inclusion. Although not so vigorous in growth as the well-known *E. europæus*, and, perhaps, not so

thoroughly together, and making it fairly firm around the collar. Then a dusting of silver sand is given on the surface. They are then stood in a north pit on an ash bottom, the foliage almost in contact with the glass, admitting just enough ventilation to prevent the foliage getting drawn, and keeping top-dressing as well as the foliage daily sprinkled with a rose can; in fact, the plants must be kept constantly moist until they are split up early in the month of May. After turning out of their pots and shaking away the soil from the old ball of roots a sharp knife is brought into use to cut off each growth with as much root attached as possible—not old root attached to the plant, but young fibrous roots that have penetrated into the top-dressing—and potting each growth carefully into 3-inch or 3½-inch pots, according to the quantity of roots each little plant has. A similar soil is used as before stated, with the exception of the sphagnum. Place a surfacing of silver sand over each pot and return to the same quarters as before, watering each plant with a rose can, and keep close and shaded from the sun for a month or so, or until you can see they begin to grow, when air should be admitted gradually, but still shading from the sun. It should be added that the plants are sprinkled with the syringe once or twice daily, according to the weather, while being kept close; in fact, the plants are daily damped thus throughout their growing period. From these small pots they are shifted into their flowering size, as given above, as soon as it is seen that the roots are working well down the side of the pot. At this potting the compost may be somewhat coarser and the leaf-soil more flaky. Add a little soot, also bone-meal, and pot firm, returning the plants to the same position, and, after a few days admitting abundance of fresh air and shade, as before stated. Applying water at the root requires judgment, and should be entrusted to a capable man. As soon as the pots get full of roots a little weak guano water once a week will assist them greatly. Towards October it will be necessary to take them to the greenhouse, where a little fire-heat can be turned on on cold nights or wet, dull days. A shelf quite near the glass roof is the best position for them, and when in full flower can be stood on the stage of the greenhouse, but the plants flower much better and do not suffer from damp if kept within 18 inches of the glass roof throughout the winter months. We grow about 150 plants. I am forwarding a specimen with these notes, having a large number equally as good, or would have been had they not been gathered from, as is the case with the one sent.—JAMES MAYNE, *Bicton Gardens, Devon.*

[Mr. Mayne kindly sends a plant to show the value of his very successful method of culture. The plant was smothered with flowers.—ED.]

TEA ROSE PAULINE LABONTE.

Mr. Mayne also sends from The Gardens, Bicton, East Budleigh, flowers of this Rose. Its colouring

is refined and made up of shades of rose, salmon, orange, and buff, a mingling of beautiful tints, which give to many of the Tea Roses their great charm. The scent is sweet and strong.

THE WINTER SWEET (CHIMONANTHUS FRAGRANS) AND HAMAMELIS ZUCCARINIANA.

A boxful of flowers of these winter-flowering shrubs from Mr. Anthony Waterer, Knap Hill, Woking, is a reminder of their sweet beauty at this season. A few twigs of the *Chimonanthus* will scent a large room, and the *Hamamelis* is a bright spot of colour in the garden on a January day.

ACACIA CULTRIFORMIS.

Strongly reminiscent of the Riviera, where it forms a glorious sight in early spring, are the flowers of *Acacia cultriformis*, sent to us by Mr. A. G. Gentle, gardener to Mrs. Denison, Little Gaddesden, Berkhamsted, Herts. Mr. Gentle writes: "I am sending a few small sprays of *Acacia cultriformis*. It started to flower this year on the 18th ult., and is now in full beauty, being



CYCLAMEN LIBANOTICUM. (From a drawing by H. G. Moon.)

one mass of yellow. I need hardly say that it adds greatly to the beauty of the conservatory. Most of the sprays are over 2 feet in length. The plant is about 15 feet by 12 feet."

VIOLA CORNUTA ALPINA.

Mr. Woodall writes from Nice: "I send you a flower of the sort so much grown here for

winter bedding. They call it *Cornuta alpina*, but it has little *Cornuta* strain in it as far as I can see. It is, however, very dwarf and free-flowering, and makes an effective bed, especially when a winter like this, with three nights of severe frost, has devastated gardens. I have never seen it in England in summer, and as it is raised from seed nothing could be easier than to grow it and see how it behaves in summer."

[The flower is very deep purple in colour.—ED.]

VIOLETS FROM KILKENNY.

From Inistioge, County Kilkenny, Mr. P. J. Malcomson sends some delightful bunches of Violets, and writes: "I enclose a few Violets or the Editor's Table. They are The Czar and Admiral Avellan (double), Neapolitan, and Mrs. J. J. Astor. These have been in flower outdoors all through the winter, and were much better than those in frames. We have picked a lot of flowers from them."

NOTES ON HARDY PLANTS.

A HARDY CYCLAMEN.

(C. LIBANOTICUM.)

HARDY Cyclamens are deservedly a popular class of plants, coming into flower at a time when few other things are in bloom. Therefore an addition to the spring-flowering section, in

the above plant, will be warmly welcomed, especially as it is so distinct and good.

C. libanoticum was introduced into this country in the year 1899, having been found with *C. ibericum* and *C. persicum* in the valleys of the Lebanon, at an elevation of from 2,600 feet to 4,500 feet. The rocky ground is of a chalky nature, and the plants are always found in shade, amongst the roots of shrubs and trees. The corms are large and scaly, and the large-shaped leaves, which have entire margins, are marked with a silver zone on

the upper surface, the under surface being dark violet. The flowers are large for a hardy Cyclamen, having reflexed segments nearly an inch in length, and about one-third of an inch in width. They are sweetly scented, bright pale rose in colour, with a carmine blotch at the base. Judging from its behaviour so far, it appears to be very free in habit, producing an abundance of bloom in February and March. There is no doubt as to its hardiness, but it should always be planted where it will receive a certain amount of shade. The hardy Cyclamens are very charming just now in the hardy alpine house in the herbaceous ground in the Royal Gardens, Kew. The dainty little flowers are very pretty seen close to the eye, and the plants are as well worthy of being grown in this way as on the rock garden. The alpine house in early spring is the most attractive spot in the garden of the writer.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

EXPERIMENTAL GARDENING.
This is of very little use as regards the future unless exact records are kept. The lives and work of many gardeners, both amateur and professional, have been one long experiment, although through no exact records being kept the real value is lost. Unfortunately, too often through a loose mode of action the practical man's work, though it may be satisfactory to himself, may not, from his lack of the use of figures, satisfy others. In making experiments in manuring, or in any other matter in gardening, there must be some given object in view and results, and the mode of reaching them must be exactly tabulated. In his work the gardener often measures his artificial manures with a flower-pot, or simply dips his hand into the bag and transmits its contents to the can or pail. This may produce good results, but it is not science as now understood. In experimental manuring the work must be carried out on a series of plots exposed to the same influences and all of the same size, and there must be no guesswork in anything. The plots need not be large, but the soil should be of the same character, which ought to be ascertained by analysis. The scientist is abroad, and here is work which the beginner with a scientific bent may carry out with interest and profit to himself and others in testing the effect of various manures upon different plants on measured plots of land.

Potato Experiments.—There are several modes of expression one hears often now which do not sound pleasantly to a humble searcher after truth, and the way in which this word science is applied to my mind sounds rather pedantic; but let that pass. I was thinking about some useful experiments in Potato culture which anyone without any claim to be a scientist can carry out. I have neither time nor space to discuss the matter fully now, but the experiment I was thinking of is this:

To give Selected Potatoes More Room and treat them to a series of trials of different manure. Take, say, half a dozen sets of one or more of any of the new Potatoes, and allow each set a square yard to grow in; the ground to be deeply trenched and in fair condition. Then select a similar number of sets of the best of the older kinds, such as Cigarette, Windsor Castle, or any kind which has given satisfaction to growers generally, and plant in the same way, all sets to be of the same weight as far as possible.

The Manner of Manuring.—The largest part of Potato ash after combustion is composed of potash and phosphates, and in any system of manuring these substances should predominate. In other respects experimenters should have a free hand. Assuming the Potatoes are planted with the spade or drilled in, some part of the potash mixture should be put in with the seed. The other part, with other more rapidly-acting manure, could be applied later. Of course, one plot would have no manure at all.

The Season for Pruning Trees and Shrubs.—In many gardens too much pruning is done; the individual character of the plant is spoilt by cutting things to one level. In other gardens the shrubs are neglected, and nothing is done to help them; or, as Shakespeare has it, "to mend Nature." Evergreens, conifers excepted, should be pruned just as the sap is on the point of

rising. Conifers, if any pruning is required, should have attention when all danger of spring frost is passed. Deciduous flowering shrubs should be pruned immediately the flowers fade.

Blindness in Strawberries.—One cause of blindness is planting in loose, rich ground. The plants make so much foliage and of such a rank character the crowns fail to ripen and there are no flowers. This is brought about by errors of culture, and would not have happened if the ground had been made firm before planting. There are other causes due to the sexual structure of the flowers, but as a rule we are quite safe if we propagate from female plants only and plant in firm land.

Protecting Fruit Tree Blossoms from Frost in Spring.—The blossom buds of Apricots and Peaches are now getting prominent, and the means of protection should be overhauled and made ready. I have always saved a crop by the use of fishing nets. In some instances I have used the nets double, in others only single thickness of netting was used, and in the latter case there was plenty of fruit for a crop. The nets should fasten on to poles fixed under the coping, and the bottoms let into the ground 3 feet from the wall.

Japanese Plants.—The Japanese are very good gardeners. They manipulate their little trees in a way which shows how patient and painstaking they are. They are sending us now thousands of Hare's-foot Ferns wound up in balls and in various fanciful designs, which seem to take the fancy of buyers. They are easily managed. If hung up in a warm house for a time fronds spring out in all directions, and with a weekly dip in a tepid bath they will give no further trouble.

Wireworms.—These pests are the grubs of beetles belonging to the family Elateridæ. There are a considerable number of species, and they are commonly known as click or skipjack beetles, on account of the power they possess of springing away with a click when disturbed. The wireworms attack a great variety of plants, and are especially fond of Carnations and other nearly allied genera. Insecticides have little or no effect on them, so that trapping must be resorted to. The best traps are slices of Carrot, Mangold, Potato, Turnip, or pieces of Rapecake, buried about 1 inch below the surface of the ground. Each slice should have a small wooden skewer

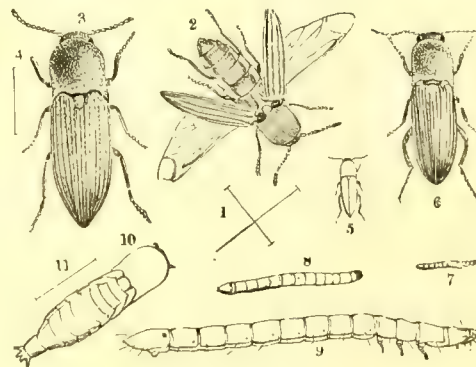
stuck into it, so that it may be the more easily found. Examine the traps every morning, and it is often said that wireworms are so fond of Rapecake that they will eat it until they burst; but this is a pure fiction, as they have been fed only on cake for some weeks, and have thriven wonderfully well on it. Strewing the ground, however, with small pieces of cake will often draw the wireworms away from a crop. Most birds are, fortunately, very fond of them. These grubs vary somewhat in size according to the kind, but the largest species is hardly more than three-quarters of an inch in length and one-eighth of an inch in diameter. They are of a yellowish colour, with brown heads and legs. The latter are short and placed near the head. The click beetles are long, narrow insects, of a dull brown, grey, or yellowish brown colour, as a rule, but some are more brightly coloured.

Liquid Stimulants for Pot Plants.—Chemical manures are cleanly and leave no bad smell; a lady might use them. We keep two or three kinds in stock, and use all in turn, as we think plants like a change of diet occasionally. But it is not of much use giving stimulants to sickly plants. Some people have an idea that a plant doctor should give medicine like his prototype in the human family does. The doctor keeps his secrets, and very often Nature effects its own cures by regulating the diet, and this diet rarely includes stimulants.

Pruning Bush Apples.—After the foundation has been laid not much pruning is required. Study each tree. Keep the centre open. Permit no branch to cross or encroach upon its neighbour. Thin the young wood in summer towards the end of July, when it is getting firm at the base, and leave four good leaves on each stem to find work for the tree to do in filling up the buds instead of rushing into soft useless spray. At the winter pruning remove unripe ends of shoots and shorten back spurs. Do not overcrowd, and bear in mind that there must be some annual development in sizes.

"He Who Plants Pears, Plants for His Heirs."—This old proverb is often quoted in disparagement of planting Pear trees. Like most old sayings, this is no doubt based upon a certain modicum of truth, but should not be interpreted in the sense it is generally understood. The Pear tree, if planted in good soil and allowed sufficient space for extension, will in the course of years assume the proportions of a miniature forest tree, as witness many of the old Pear trees in the orchards of Worcester and other counties, and will produce abundant crops for scores—if not for hundreds—of years. Thus considered the old saying is perfectly true. But it does not say that bush or pyramid Pear trees, planted in suitable soil and under intelligent cultivation (especially when worked on the Quince stock), will not return to the planter for his own enjoyment and profit plentiful crops and as expeditiously as the Apple or any other fruit tree; this, nevertheless, is a fact.

Window Plants.—One of the best of all window plants is the so-called Parlour Palm (*Aspidistra lurida*) and its variety *variegata*. It will stand draughts and a slight frost, but is, of course, more luxuriant when not exposed to such trials. The leaves must be kept gently sponged from time to time to remove dust, and their hard surface admits of this. The flowers are very quaint and interesting.



WIREWORMS.

1 and 2. *Agriotes lineatus*. 3 and 4. *Agriotes obscurus*. 5 and 6. *Agriotes sputator*. 7 and 8. Wireworms, natural size. 9. Wireworm, magnified. 10 and 11. *Chrysalis*.

GARDENING OF THE WEEK.

FLOWER GARDEN.

BEDDING GERANIUMS.—Autumn-rooted plants should now be potted, reboxed, or mossed, the latter being much the most satisfactory where wood moss is plentiful or can be procured at a cheap rate. The operation is more easily performed than described. You hold a thin cake of clean moss, flat, on the palm of the left hand; with the right place the rooted cutting on it near the top edge and spread the roots; lay the thumb of the left hand on the cutting stem near the root to hold in position; sprinkle a little fine soil over and among the roots; gather up the lower part of the moss until the roots and soil are enclosed in it, and then tie with wide matting somewhat similar to tying a small pot for packing. After tying place the plants back tightly in the boxes or on stages until the roots are again active. Then they can be removed to cold pits and plunged in light material. The moss will soon be full of young roots. Mossing, as briefly described above, takes a little more time to perform than actual potting, but it is time well spent and paid for subsequently, if only in the saving of labour in watering. If the moss is moist at planting it will retain moisture for a considerable time—at least, until roots strike into fresh soil—so that plants thus grown become established without hardly a leaf changing colour. Fewer Geraniums are now grown than formerly—and rightly so, too, I think—for they are fine-weather and sun-loving plants, conditions that do not always obtain in this fickle climate. Still, some are essential in every flower garden for their brightness of colour while in bloom. Of varieties West Brighton Gem is a splendid colour for distant beds, and its crimson variety is its counterpart in all except colour. I consider these two ideal bedders, dwarf, stocky, and very free-flowering. Dryden is a fine bright rosy pink variety, but a strong grower. The scented-leaved Graston is unique for lines or beds, and the popular Ivy-leaved Mme. Crousse stands wet better than most. No whites that I have tried are quite satisfactory, all looking woe-begone and bedraggled after heavy and frequent rains. The best golden-leaved is Crystal Palace Gem; the best bronze, Maréchal McMahon; and the best silver, Miss Kingsbury, but this variety reverts to the type a good deal.

TUBEROUS BEGONIAS, sown as advised in a previous calendar, are now ready for pricking out. Fill the boxes with prepared soil, as recommended for sowing the seeds; make the surface moderately firm and quite level; water through a fine rose, and when soaked, drained, and settled, dibble very small and shallow holes an inch or less apart all over the surface in readiness to drop in the tiny seedlings. These are too small for handling, but a match-stem or lead pencil will pick up those that are ready. There will probably be several successional batches from the same sowing, as occasionally they germinate unevenly. Tedious as is this operation, it has to be done as soon as two tiny leaves are formed, or many will inevitably damp off. Keep close and moist and in the same temperature, and they will soon be ready for another shift.

The Gardens, Tan-y-bwlch, North Wales. J. ROBERTS.

INDOOR GARDEN.

THE greenhouse or conservatory should now be very gay with plants which naturally flower at this season and those which are brought on with a little extra heat. Continue to introduce shrubs and bulbs at suitable intervals. Less heat is now required to get them into flower. For variety a few Moutan Peonies and Clematis may be brought in. *Sparmannia africana* is an extremely useful winter-flowering greenhouse plant. A few cuttings should now be inserted. Avoid too liberal treatment and overpotting, or the result will be all growth and no flower. Plants of *Abutilon Savitzi* are always useful for mixing with flowering plants. Now is a good time to root a few cuttings.

BEGONIAS.—As greenhouse flowering plants many of these are useful for summer or winter. Cuttings of some of the most useful may now be inserted. Old plants should also be gone over, the drainage attended to, and top-dressed or potted on as required. A few of the most useful are *Corbeille de Feu*, *President Carnot*, *coccinea*, *echinosepala*, *Dregei*, *fuchsoides*, and *semperflorens gigantea*. The smaller-growing *semperflorens* varieties Mrs. Bertram Currie, *rosea*, and *alba* are best if propagated by division.

SOLANUMS AND CAPSICUMS.—Several species of these two genera if sown about this date make very ornamental winter greenhouse plants. Sow thinly in pots or pans filled with light, rich soil, and plunge in a hot-bed. When 2 inches or 3 inches high the young plants should be potted off singly into 3-inch pots. Keep near the glass in a warm house where plenty of moisture is present. The size pots in which they are to fruit varies; 5-inch pots will be sufficient for the smaller growing; the stronger ones will require 6-inch or 8-inch pots. For the final potting use a rich soil composed of three parts fibrous loam and one of manure from a spent hot-bed, adding a little sand. Frequent syringing to prevent the attack of red spider will be necessary. The fruit commences to ripen in September, and will last in good condition for a long time. A selection of suitable kinds is *Solanum integrifolium*, *S. Melongena* (Egg Plant), *S. Worsleyi*, *Capsicum annum*, *C. baccatum*, and *C. minimum*.

FERNS.—As the days lengthen and the sun becomes more powerful the Ferns will commence throwing up new fronds. Now is a suitable time to commence potting and

top-dressing. The stove varieties should be done first. With the exception of large specimens, most of these will require repotting, possibly only into the same size pot, but as they require a large amount of water in a year, the soil becomes sour and impoverished and requires renewing. Careful attention must be paid to drainage. In cool houses repotting is not necessary so often. A compost for a mixed collection of Ferns may consist of fibrous loam, peat, leaf-mould, and sand. Where a large collection of several genera are grown it is advisable to vary the proportions of the compost a little. *Adiantums*, for instance, like a more loamy compost than *Davallias*, while for the latter the compost should be rougher. After potting careful attention must be paid to syringing, ventilation, and shading.

Royal Botanic Gardens, Kew.

A. OSBORN.

ORCHIDS.

DENDROBIUMS.—In the cool greenhouse, where some of the late-flowering *Dendrobiums* are still at rest, plants of *Odontoglossum citrosum* are now starting into growth; but for the present they should not be removed into the warmer house, because if the new growths are induced by heat and moisture to make a rapid advance they might grow away and produce no flowers at the proper season. Unless excessive shrivelling of the pseudo-bulbs occurs, the plants will require no water at the root until the flower-spikes are seen pushing up through the centre of the young growths. Immediately the spikes are discernible remove the plants to a warm sunny position in the Cattleya or intermediate house, affording them a moderate supply of water until the flowers open. An occasional syringing overhead on warm bright days will greatly assist the proper and full development of the spikes and flowers. If towards the end of March the young growths show no signs of flowering the plants should be removed to their growing quarters. The resting season being over, no amount of dryness at the root after this period will induce the plants to flower. The time to repot *Odontoglossum citrosum* is immediately after the flowers fade. Those plants that fail to bloom may be repotted as soon as the growths are fairly active. Now flowering in the cool house is

ODONTOGLOSSUM CORONARIUM MINIATUM.—This variety blooms with far greater freedom than the stronger-growing *O. coronarium*, and should be obtained whenever possible. Both plants require fresh rooting material when growth recommences. Being strong scandent growers, they should be cultivated in long, narrow Teak wood baskets. Place large pieces of crock over the bottom of the basket, and fill between the roots and up to the base of the rhizome with clean freshly-gathered sphagnum moss, adding moderate quantities of small crocks and coarse silver sand. Afford the plants plenty of basket room, so as to give the large fleshy roots plenty of feeding ground. After root disturbance keep both plants near to the roof of the cool house, and supply them liberally with water the whole year round. During the early days of this month a few plants of

PLEIONE HUMILIS were in bloom in the cool house. Their small, pretty flowers when open are always appreciated. It is also the season for *P. hookeriana* and *P. h. brachyglossa* to bloom. Both are lovely sorts, but very rare. These *Pleiones*, coming from the Himalayan mountains at from 7,000 feet to 10,000 feet elevation, require very cool treatment the whole year round. The flowering season being now over, the plants should be examined to see if they require fresh compost or more room for the growths to extend themselves. On close inspection it will be seen that the purple-coloured shoots from which the flowers have sprung are commencing to grow, and from their base a quantity of new roots will be very quickly formed, which will supply the growths with nourishment during the coming season. These *Pleiones* are best grown in shallow pans, that may be suspended well up to the roof glass. Plenty of drainage should be afforded, the compost consisting of equal proportions of peat, loam, and chopped sphagnum moss, with a sprinkling of coarse silver sand, the whole of these materials being well mixed together. The other species of *Pleiones*, as *P. maculata*, *P. lagenaria*, *P. concolor*, *P. precox*, and its variety *P. wallichiana*, require to be grown in the coolest and most airy part of the Cattleya or intermediate house, and now that they are growing rapidly, the supplies of water should be gradually increased. Syringe the under sides of the foliage two or three times a day when the weather is bright.

Burford Gardens, Dorking.

W. H. WHITE.

FRUIT GARDEN.

ORCHARD HOUSE.—It is now necessary to place all trees intended for fruiting this season under glass. Wash the trunks and main branches with a mixture of soft soap and sulphur before placing them inside, and thoroughly cleanse the house both inside and out. Set out the trees on the floor of the house, if possible, in a methodical manner. The roots are now active, and it is important they should not suffer for want of water. When water is necessary, make sure that sufficient is given to soak the soil through. Before the trees come into flower fumigate the house. When in flower tap the trees two or three times a day to disperse the pollen. Should a spell of cold wet weather supervene fertilise the flowers with a camel-hair brush and slightly heat the water-pipes. Avoid sudden fluctuations of the temperature, which often result in a bad set of fruit.

FIGS IN POTS.—These have made much progress during the past very favourable weather, and are approaching the flowering stage. Do not attempt hard forcing during this period. The night temperature may be kept steady at about 60°, with a rise to 75° or 80° during the day. They will need constant attention in regard to watering, and

must not be allowed to become dry, or fruit dropping will be the result. Keep a sharp look out for red spider, and sponge the leaves with a weak mixture of soft soap as soon as it is discovered. In starting succession houses one must be guided by the date on which it is most desirable the crop should be ripe; but it is far better to start the house a week or so earlier, and force gradually, than to have to resort to vigorous measures later by hard firing. Assuming the trees are planted in shallow inside and well-drained borders, they will require liberal treatment in the way of stimulants, which must be given tepid. Stop the shoots at the fifth or sixth leaf, and remove any weakly growths and suckers. Admit plenty of air on favourable occasions to encourage hard short-jointed wood. The covering on trees outdoors must now be removed and the trees pruned and trained. Remove a little of the surface soil and top-dress with fresh loam mixed with artificial manure and brick rubble. Examine the borders, and if dry give a thorough watering.

STRAWBERRIES IN POTS.—It is a wise plan now to have a large batch of plants growing slowly in a moderately warm house. Select the best and strongest as they throw up their flower-spikes, and move them to warmer quarters as required. Keep them free from red spider, especially if they are in fruit houses. The syringe must be freely used, except when the plants are in flower, and the roots kept always moist.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

HERBS.—No garden can be at all complete without its bed or border of fibrous-rooted and bulbous herbs. Several of these will now claim attention by way of dividing and transplanting. Among herbs Garlic and Shallots are favourites. A planting of both should now be made on a piece of moderately rich ground. Plant the bulbs 9 inches from row to row and 6 inches from bulb to bulb. Make a hole with the point of a trowel deep enough to bury three parts of the bulb. Place the bulb in the hole, draw the soil around it with the fingers, and make fairly firm. Sage propagated in hand-lights last autumn may now be planted in beds 12 inches from plant to plant, every way placing the plants alternately. Mint, Tarragon, Thyme, Marjoram, &c., should also be attended to where the plants have overgrown their limits or have become exhausted. These should now be lifted and divided, retaining the best parts of the plants only, when the beds have been well dug and manured. Thyme may be planted fairly deep, and 6 inches from plant to plant. The other herbs mentioned, having a tendency to spread, may be planted 12 inches apart every way. As planting proceeds a little fresh soil laid about their roots will induce the plants to start into vigorous growth.

CHEVIL.—A sowing of Chervil may also be made, but this being an annual, a new bed will be required every year, the seed to be sown broadcast, and covered lightly with fine soil, making the size of the bed according to requirement.

PARSNIPS AND SALSAFY.—Sowings of each should now be made on ground both rich and deep. Choose dry weather to break up the surface, and draw out drills at an early hour of the day, so that by the influences of sun and wind the drills may be warm and dry for the reception of the seed in the afternoon. When sowing has been completed cover with soil and rake lightly, drawing the rake parallel with the rows. Drills for Parsnips must be 12 inches apart; for Salsify 9 inches will be sufficient. If shapely Parsnips are wanted for exhibition purposes make holes with a pointed crowbar, and fill with equal parts of sand, leaf-mould, and wood ashes. Sow two or three seeds in the centre of these prepared holes, retaining only the best plant when thinning time arrives for all purposes. Hollow Crown is my favourite variety.

CAULIFLOWERS that were sown last autumn and wintered in frames may now be planted out on a warm border, where the soil is of good quality. When hand-lights can be spared set these in a row about 12 inches apart. Plant one Cauliflower in each corner of the hand-light. Keep rather close for a day or two, and shade during bright sunshine with a few Spruce or Yew twigs until the young plants get fairly accustomed to their new quarters. Remove the tops of the hand-lights altogether when the weather becomes more genial. Young Cauliflower plants raised on a hot-bed, as advised in a previous calendar, may also be planted in hand-lights, but where these are not available Spruce, Yew, or Laurel boughs afford good protection to young Cauliflower plants at this season.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

ORCHIDS.

THREE STRIKING CYPRIPEDIUMS.

CALLING at Glebelands one day recently I was fortunate to see in flower *Cypripedium* Mrs. W. Mostyn Chardwar var., *C. Eson* var. *giganteum*, and *C. Olivia*, all fine, and in their way the best of their respective classes.

C. Mrs. W. Mostyn is a noble Lady's Slipper of colossal size. It is also striking from its black, white, and purple colouring. The parents are *C. Boxalli* var. *atratum* and *C. Calypso*

Oakwood var., which makes it a secondary cross and also supports the theory that hybridists are now working on, that the finest hybrids are to be obtained on this principle. Grand form and large size are both combined in this fine hybrid; the whole flower is beautiful in its rich polished colouring. The dorsal sepal is bright green at the base, the middle being thickly covered with dark purple blotches on a white ground, working to a rich rose tint, and ending in a margin of white; the broad and well-formed petals are, with the pouch, of a yellowish ground, veined and spotted with a deep purple.

C. Aeson var. *giganteum* has for its parents *C. insigne* and *C. Druryi*. The huge dorsal sepal, with its shades of green and brown spotting, the upper half white, is most striking. The petals are brown, shaded with greenish yellow, while the pouch is much the same, but of a deeper yellow. This is the only very fine example from the seed-vessel. All the other plants have been just the ordinary *Aeson*. The most valuable *Cypripedium* yet raised, viz., *J. Gurney Fowler*, is from a capsule, in which all the other plants on flowering (quite a number) proved to be ordinary *C. leeanum*, and there are other instances on record. The last of the trio is

C. Olivia.—This is said to be bred from *C. tonsum* and *C. concolor*, but it is probable that an error has been made here, and that *C. niveum* has given the beauty attributed to *C. concolor*. The soft ivory white and pink colouring of the whole flower, with its dotted purple lines, recalls *C. niveum*. In any case this is one of the very finest rosy white *Cypripediums* we have both for size and colouring.

Other very fine specimens, in and coming into bloom, include *Dendrobium wardianum* var. *fowlerianum*, noted for its exquisite markings, which among Orchidists is known as tri-labellia, and of which a familiar example is the now plentiful *Dendrobium Cooksoni*; the two lateral sepals have yellow markings with a purple blotch, after the manner of the colour displayed in the labellum, the rest of the flower being white, with rose-purple tips, as in the normal form. I also had the pleasure of seeing a specimen of the pretty hybrid *Cattleya Miranda*, a cross between *C. Trianae* and *C. guttata* Prinzi. This has sepals of a beautiful rose colour, with petals of a deeper shade, both sepals and petals being somewhat spotted with purple. The lip has a rich crimson-purple front with white throat. Many other choice specimens were in flower in this collection, and no matter what the season of the year, something of more than passing interest can always be found here.

ARGUTUS.

THE KITCHEN GARDEN.

POTATO SUTTON'S DISCOVERY.

AMONG new Potatoes Sutton's Discovery has taken a high place on account of its extraordinary power of resisting disease, and its remarkable fertility. The crop obtained from a single tuber, viz., 11½ lb., is shown in the illustration. The vigour of this variety is most evident in late autumn, when the foliage remains erect and green after the shaws of other varieties have perished. The stems are brown and of a tough woody texture quite unlike those of ordinary Potatoes, and this characteristic materially assists in protecting the tubers from harm. We have grown this Potato, and can testify to its great cropping quality, and also to the good flavour of the tubers when cooked.

RHUBARB CRIMSON WINTER.

THIS is stated to be an "ever bearing" variety, and it originated in California about four years ago after being tested for three years, in which it proved a perpetual producer; it is now in

course of distribution. It is said to differ entirely from the common Rhubarb. Its flavour is excellent, and there is an entire absence of the fibrous strings in the stalks which are common to the old variety. It would be interesting to know the parentage of this new introduction. We are informed that it has "proved in California to produce good marketable stalks fully six months earlier than any other variety. The stalks are from 6 inches to 8 inches long, and three-quarters of an inch to 1 inch in diameter."

R. D.

RHUBARB DAW'S CHAMPION FORCED.

THIS new Rhubarb promises so well that it is worth a special note on account of its splendid forcing qualities.

When grown in the open with only a little protection it is very fine; its size goes a long way to make it a popular variety. It was given an award of merit in February, 1900, as a forcing variety by the Royal Horticultural Society, and certainly it well deserved the award, as each season proves its excellence. I well remember the fine stalks that received the award when staged by Mr. Poupart of Twickenham. It is excellent when cooked, and it forces so readily. It is described as a seedling, the parents being the *Victoria* and the well-known *Champagne*, both noted kinds, but the new one is much finer and very early. At this season, when the hardy fruit store is thinning fast, a good supply of forced Rhubarb is a welcome addition, and it is well to grow the best kinds. I feel sure those who give Daw's Champion a trial will be pleased with it.

G. WYTHES.

ROYAL HORTICULTURAL SOCIETY.

SHOWS, MEETINGS, AND LECTURES FOR 1905.

February 28.—Exhibition and Meeting. Lecture by the Hon. J. H. Turner on "Fruit Growing in British Columbia."

March 14.—Exhibition and Meeting. Lecture by the Rev. Professor G. Henslow, V.M.H., on "Bud Variation."

March 28.—Exhibition and Meeting. Lecture by Mr. Frank Pink on "Bananas."

March 30 and 31.—Show of Colonial-grown Fruit and Vegetables.

April 11.—Exhibition and Meeting. Lecture by Mr. T. J. Powell on "Retarded Potatoes."

April 25.—Auricula and Primula Show and Meeting. Special prizes offered for Daffodils. Lecture by Mr. James Hudson, V.M.H., on "The Making of Japanese Gardens in England."

May 9.—Exhibition and Meeting. Lectures by Mr. N. Hayashi on "Japanese Horticulture," and by Mr. R. Farrer on "Japanese Plants and Gardens."

May 23.—Tulip Show and Meeting. Lecture by Mr. E. M. Holmes on "Medicinal Plants."

May 30, 31, and June 1.—Flower Show, Inner Temple Gardens. Fellows admitted after 12.30 on May 30 upon showing their tickets.

June 20.—Exhibition and Meeting. Lecture by the Rev. Professor G. Henslow, V.M.H., on "Plants of the Bible."

July 4.—Sweet Pea Show and Meeting. Lecture by Professor H. J. Webber on "The Progress of Horticulture in the United States."

July 18.—Carnation and Picotee Show and Meeting. Lecture by the Superintendent on "The Wisley Gardens."

August 1.—Exhibition and Meeting. Special prizes offered for Cactaceous plants. Lecture by Mr. C. T. Drury, V.M.H., on "British Ferns and their Wild Sports."

August 15.—Exhibition and Meeting. Lecture by Professor Craig on "Orchard Management."

August 29.—Exhibition and Meeting. Lecture by Mr. Lewis Castle on "Trees for Towns."

September 12.—Exhibition and Meeting. Lecture by Mr. W. P. Wright on "Potatoes."

September 26 and 27.—Autumn Rose Show. Meeting on September 26 and Lecture by Mr. W. F. Cooling on "Autumn Roses."

October 10, 11, and 12.—Show of British-grown Hardy Fruits.

October 24.—Vegetable Show and Meeting. Lecture by the Rev. Professor G. Henslow, V.M.H., on "The Meaning of Natural Selection."



THE PRODUCE OF A SINGLE TUBER OF POTATO SUTTON'S DISCOVERY.

November 7.—Exhibition and Meeting. Lecture by Dr. J. A. Voelcker, M.A., on "Horticultural Chemistry."

November 21.—Exhibition and Meeting. Lecture by Mr. E. T. Cook on "Hollies."

December 5 and 19.—Usual Exhibition and Meeting.

* Lecture Illustrated by Lantern Slides.

NOTE.—The Shows will be held in the Royal Horticultural Hall, Vincent Square, Westminster, S.W., unless otherwise stated. Fellows are admitted free at 1 p.m.; the public at 2 p.m. on payment of 2s. 6d.

ANSWERS TO CORRESPONDENTS.

NAMES OF PLANTS.—*H. M.*—*Ivy palmata aurea*.—*E. G.*—The blue flower is *Iris fimbriata*, and the orange flower *Imantophyllum miniatum*.—*A. Shearn*.—*Matricaria Chamomilla* (Wild Chamomile), a common annual weed in many parts of the country. It must not be confounded with the true Chamomile (*Anthemis nobilis*).

NAMES OF FRUIT.—*H. W. H. (Bedford)*.—1, Dutch Mignonette; 2, Nelson's Codlin; 3, Tibbett's Pearmain.

ROYAL HORTICULTURAL SOCIETY (*Ig. and others*).—In response to several letters about the Royal Horticultural Society, the way to obtain information of its work is by applying to the Secretary, Vincent Square, Westminster.

CHRISTMAS ROSE (*A. J. B.*).—Among those with white flowers *Helleborus altifolius* would suit you best. It is a larger sort than *H. niger*, the common Christmas Rose. The flowers, however, are not usually so white as in *H. niger*, so you might grow this as well. The finest of the red-flowered sorts is *H. colchicus*, the flowers rise above the foliage on strong stems; it blooms during February and March. *H. altifolius* is an early one, flowering before Christmas. July is the best time to divide or to transplant. If planted in well tilled and manured soil they need not be disturbed for five years or more.

PRUNING RAMBLER ROSES (*M. M. L.*).—Your plants should be pruned early in March, that is, if they were from the open ground and not pot-grown. You say the shoots are about 10 feet long, which leads us to suppose they are upon pot-grown plants, but should it be otherwise cut back the growths at varying lengths from 1 foot to 2 feet from the base. The growths should be kept loosely tied to their supports, and in September pinch out their points to assist ripening, then the following year such growths should flower freely. Pot-grown plants having their roots established need not be cut back in this severe manner. We usually remove the unripe ends of the shoots and tie the others in the first year. The second and succeeding years one or two growths are cut down to the ground, whilst the others are allowed to remain nearly full length.

CARNATIONS (*N. M. C.*).—It is not advisable to divide old plants. It is far preferable to layer all the shoots you can and have young plants; they flower much more satisfactorily. If your old plants are flowering well, why disturb them. If they are not, layer the young shoots. This, however, should be done after flowering in August. Carnations do not need peat. Mix plenty of sand and road scrapings to lighten your heavy clay soil. Mix some manure with the soil, but not soot. Give this as a top-dressing when the plants are coming into flower. It is important to have the soil well dug. That part of the border which is empty you should well dig and mix sand, road scrapings, and manure with it. Plant out early in March if the weather is favourable. Leave your big clumps undisturbed till August, then layer the shoots. Well dig the soil next winter, add manure and sand, and plant the young plants next spring.

CEANOTHUS (*A. H. W. D.*).—*C. azureus* flowers on the young wood, and should be cut back in spring. Allow only sufficient shoots to remain to form a presentable and well-balanced plant, and shorten them to within two or three buds of the old wood. *C. americanus*, *C. integrifolius*, and the garden hybrids, such as *Gloire de Versailles*, &c., all flower on the current year's shoots, and should be similarly cut back. The remaining species flower on the old wood, and merely require to have the stronger shoots shortened and the weakly ones thinned out after the flowers are over. The *Hypericums* should be cut back fairly hard in early spring, as they flower on the young shoots. You should mulch your plants with a covering of manure in early summer, especially as your soil is sandy.

SEAKALE (*Bournemouth*).—If you want to force the roots this spring it does not much matter how many in reason you put in—plant, say, 3 inches apart. After forcing the roots may be thrown away. If, however, you want to grow the plants this year and force them next, your best plan would be to buy cuttings and grow them on. You can get Seakale pots of different sizes, so the number of roots placed under each pot would depend upon its size. Old barrels or

boxes will do as well. Arrange the plants in a circle if you cover with a pot or barrel, and in a square or oblong if with a box. Leave 12 inches between each clump. You will find both plants and pots advertised in our pages. If you want to plant Seakale (not for forcing this year) put the root-cuttings in rows 15 inches apart, the cuttings 10 inches apart in the row.

POTASH FOR THE GARDEN (*R. G. G.*).—There is no better way of supplying potash to a light soil at this season than by the addition of wood ashes, the residue of burnt wood, and vegetation matter. A spadeful to a square yard would be a fair dressing.—Will a Hybrid Tea Rose do well on a grave mound in a churchyard? Yes. If you want a red Rose plant Ulrich Brunner, if white plant Frau Karl Druschki, if pink Mrs. John Laing. Plant deeply, being on a mound, or the Roses will suffer from drought in summer.

PEARS FOR NORTH WALL (*E. H. W.*).—Only quite early Pears should be planted against a north wall, and even then their successful fruiting must materially depend on the nature of the season. We have seen in fairly warm districts such as yours are varieties like Williams' Bon Chrétien, Louise Bonne of Jersey, Marie Louise d'Uccle, and Souvenir du Congrès producing very good fruits on a north aspect in warm seasons, and even Winter Nélis has occasionally fruited well. We have had the stewing Pear Catillac also doing well on the north, and it is well worth growing for stewing purposes. Victoria Plum commonly does well on a north aspect, so also will Gooseberries and Red Currants, especially if the latter be the fine Red Cherry. A few early Apples, such as Lord Grosvenor, Lady Sudeley, Stirling Castle, and Grenadier may also do well.

TROPICAL IPOMÆAS IN THE OPEN (*H. M. W. B.*).—The *Ipomœa* family is such an extensive one that it is a difficult matter to name from the description and seeds alone, but we think you are right in assuming the first to be *Ipomœa hederacea*, the flowers of which vary much in colour. The second we take to be *I. rubro-cœrulea*, whose flowers become slightly suffused with a reddish tinge before they wither. The Moon-flower is *Ipomœa Bona-nox*, said to have been introduced into this country in 1773, but it is very seldom met with in gardens. A few years ago *I. rubro-cœrulea* was sent across the Atlantic, under the name of "Heavenly Blue," as a beautiful new variety, but it turned out to be an old and well-known kind. A tropical species that we have several times flowered well out of doors during the summer is *I. quamoclit*, the Cypress vine of the United States. This is a slender climber, with delicate, much-divided foliage, and small starry flowers of a bright red colour. Occasionally, however, they are white, and sometimes of a poor intermediate tint.

RELAYING LAWN (*Lawn Tennis*).—It would hardly be safe to relevel your lawn and expect it to be ready for play by May. If, however, you can wait until the end of June you might, by beginning at once, after levelling or relaying the turf, top-dress, sow seed, rake it well in, and roll. Water when necessary. Grass grows quickly in May and June, and the lawn should be ready for play by the end of the latter month if you attend to it well. The top-dressing of soil will help fill the interstices. To remove inequalities you cannot do better than follow Sutton's advice. Across the hollow cut with an edging-iron parallel lines in the grass, 10 inches or 12 inches apart, making also one cut in the centre at right angles to the others, then use the turf-cutter and roll back the turf from the centre. Make the bed perfectly level, leaving the soil with a firm but crumbled surface, carefully restore the turf, which will need to be compressed into its original position, beat down, water, and roll. In a few days no trace of the work will be visible. Sulphate of ammonia and nitrate of soda

both encourage the growth of grasses, and so crowd out Clovers and other weeds. Do not apply more than 1lb. (whether mixed or separate) per rod of land.

COCKCHAFER GRUB AND GERANIUMS (*E. R.*).—Thorough search, such as you have carried out, is the only way to rid borders of this pest. We should think that only one brood of larva caused the trouble, judging from the number your gardener found, and there is no serious likelihood of a recurrence of the trouble this season. The perfect insect lays its eggs about midsummer, these hatch quickly, and the larvæ start feeding at once, and continue for about fourteen months. A further eight months is spent in the pupa state before the insect develops. Any grubs that may be left behind will, of course, be troublesome, and there is always the possibility of the female insect again visiting your garden at some future time and depositing eggs there; on the other hand, you may never see them again. The cockchafer (*Melolontha vulgaris*) is not a common garden pest in England, but, like most insects, it is more frequent in some seasons than in others.

PLANTS FOR SCREEN (*Sarum*).—We would recommend as climbers to cover the screen *Clematis montana*, *Polygonum baldschuanicum*, and *Jasminum nudiflorum*. All are very hardy, and would "consort" well if there is room for three climbers upon the screen. They are rampant growers and will quickly cover a large surface. Plants suggested for the "screen" end of the border are (back row) *Echinops sphærocephalus*, *Aconitum autumnale*, *A. Napellus album*, *Solidago Shortii*, *Centaurea ruthenica*, *Cephalaria alpina*, *Anchusa italica*, (middle row) *Catananche bicolor*, *Flag Iriess*, *Hemerocallis Aureole*, *Eriogonum fruticosum*, *Anemone japonica* and varieties, *Asphodelus ramosus*, (front row) *Erysimum rupestre*, *Phlox setacea*, *Lychnis viscaria* in variety, *Anthemis Kelwayi*, *Potentilla formosa*, *Thrifts*, *Anemone Pulsatilla*, and *Iris pumila* in variety. The remainder of the border in front of the "building" could be planted with anything you may wish for—*Delphiniums*, *Phlox*, *Pyrethrums*, and the like, for in this case great hardiness is not so necessary owing to the shelter of the building.

WIRE NETTING FOR CULINARY PEAS (*W. S.*).—Though sometimes used for supporting Peas wire netting is seldom satisfactory; the size of mesh varies from 1½ inches to 2½ inches. Good Pea boughs are much to be preferred, as the tendrils cling more readily to them and the young growths do not get so much damaged by rough winds. Pea trellises can be obtained from most sundriesmen in various sizes, but are too expensive for general use, and not so suitable as ordinary Pea stakes.

IMPOVERISHED LAWN (*Lawn*).—As your lawn covers an acre we should advise you to harrow the grass. Use a toothed harrow heavily weighted, and take care that the horse which draws it has proper boots, so that its feet do not injure the lawn. The effect of the harrow is to stimulate the growth of the grass. It has the same effect as the rake. To use this, however, would not be practicable on so large a lawn. After raking or harrowing the lawn should be manured. For manure you should use a special lawn manure, which may be had from any seedsman who makes a speciality of grass seeds. This must be mixed with rich sifted soil in the quantity specified. You would, however, obtain full directions with the manure. Now is an excellent time to renovate a lawn. Where the grass is thin sow seeds after the harrowing and top-dressing. You must sow seeds at the rate of at least one bushel per acre, even more if the lawn is very poor. After sowing rake in the seeds, covering all possible, then roll. Keep sparrows away. Sow when the lawn is dry, if the grass is wet the seeds cling to it and are

wasted. You may improve a poor lawn by making liquid manure and applying it in the evening.

GLASS HOUSE IN THE SHADE (*A New Subscriber*).—A glass house erected in the position described would be suitable for the growth of Palms, Ferns, and some beautiful foliaged plants such as *Begonia Rex* varieties, but would be practically useless for the growth of flowering plants.

PRUNING PEARS (*New Subscriber*).—The tree is evidently intended to be a standard, and the shoots should be cut away from the stem.

SEEDLING PASSION FLOWERS (*Pauline*).—These are much longer than plants raised from cuttings before they flower. Prune the plant back next month to form wood. The young shoots which break away will very likely flower next summer.

WALNUT TREES (*Walter Curtis*).—In country districts where Walnut trees abound it is considered that thrashing the trees with long poles brings them into bearing. Possibly if the roots could be got at and pruned the effect would be the same. If the tree is old enough to bear, a check of any kind would be useful.

FLOWERS FOR VASES (*New Subscriber*).—We should plant them in the first instance with Hyacinths, the bulbs 6 inches apart and 3 inches deep, and between the bulbs we should plant Forget-me-nots. You would then have a carpet of blue as a setting for the Hyacinths. They are in bloom at the same time. For the summer you could have Fuchsia Ballet Girl or Ivy-leaved Geranium Charles Turner.

THE OCHRO OR GOMBO (*O. F.*).—This is a tall-growing herbaceous plant belonging to the Malvaceæ, and known to botanists as *Hibiscus esculentus*. It is probably of African origin, but is naturalised in all tropical countries, in most of which it is now cultivated for the sake of the edible fruits which in the green state are much used as a vegetable and for thickening soups. The plant being a native of tropical countries would naturally require glass protection in this country.

SOIL FOR CACTI (*Oxo*).—Cactaceous plants should only be repotted when the pots are full of roots or if the soil is sour. If the latter is the case wash all the soil from the roots. April is the best month to repot these plants. The principal ingredient of the compost should be good fibrous loam; to every five parts add one part sandstone or broken bricks, crushed to the size of a walnut, and from that size downwards to dust. Use pots as small as possible, making them nearly half full of crocks. If you grow Epiphyllums on their own roots (not grafted on *Pereskia*) use a mixture of peat, charcoal, and sand. For *Phyllocactus* use a compost of loam, peat, and rotten manure, with plenty of sand intermixed.

SMALL FRUITS (*W. A. Watts*).—The Raspberries may be trailed to espaliers or poles, but the Gooseberries and Currants should be grown as bushes. We have added a few varieties to your list, and all are good. Of Raspberries plant Superlative, 50; Norwich Wonder, 20; Falstaff, 20; The Guinea, 15 (yellow, for dessert); and Orange d'Automne, 15 (autumn variety). Boskoop Giant is by far the best and largest Black Currant, plant 12; Baldwin, 4; Lee's Prolific, 4; and Dunnett's Champion, 4. Of White Currants plant White Dutch or Grape, 3; and Transparent or Versailles, 3. Of Gooseberries plant Green Gage (colour green), 2; Crown Bob, 2; Lancashire Lad, 2; May Duke, 3; Warrington, 4; Whinham's Industry (all red), 3; Champagne, 2; Keepsake, 2; Golden Lion, 2; Golden Drop (all yellow), 2; Cheshire Lass, 2; and White-smith (both white), 4.

BUILDING A GREENHOUSE (*Working Man, Bramley*).—If you have a few carpenter's tools,

such as a saw, chisel, hammer, &c., and know how to use them, you can build a small greenhouse cheaply, as when everything has to be paid for the labour costs more than the materials. But if you have to pay for labour, then it will be cheaper to buy the house ready for erection as a tenant's fixture. If you decide to do the work yourself, you can buy any scantlings you may require, wall plates, sash bars, &c., planed ready for fixing, except cutting and fitting together, at the saw mills in Leeds at a very low rate. For a house of the size named a small heating apparatus in the shape of an improved oil lamp would be cheaper than a boiler and pipes. The place is hardly large enough for a boiler.

FRUIT TREES (*Inglenook*).—If you prefer fruit to flowers, you may not only cover the walls of the house with fruit trees, but also the Oak fences. But the trees for the fences must be confined to Pears and Apples trained horizontally. The fences are too low for stone fruits, though Gooseberries and Currants may be planted and trained on the north side. Plant Pears and Apples on fences about 15 feet apart. On the house you might plant an Apricot or Peach on the south aspect, and Plums on other walls. If you have any lawn at all let it be in the shape of a grass walk through the garden, with a border for flowers on each side, backed up with fruit trees, either bush trees or espaliers. The latter are nice, but expensive. Bush Apples on the Paradise or Pears on the Quince will cost less and bear sooner. There should be room for bush fruits, Raspberries, and Strawberries. If this does not quite meet your wants write us again.

CAMELLIA UNSATISFACTORY (*D. M. R., Bourne-mouth*).—Evidently your Camellia is suffering from the want of proper soil. The leaves denote that the soil is deficient in plant food and probably badly drained. This is borne out by your saying that the tree is not thriving. If the tree is too large to lift and transplant, we should advise removing as much of the soil as you can without damaging the roots. Dig a trench all round it, say, at 4 feet from the stem, then gradually fork away from among the roots as much of the old soil as possible, afterwards filling in with fresh turfy loam with which some bone-meal has been previously mixed. Make it firm. If the drainage is at fault you must take out as much soil as you can from underneath the tree and put in broken bricks 6 inches deep. This will ensure the soil about the roots being kept sweet. The Camellia needs a good deal of water in spring and summer, and manure water at frequent intervals.

MORELLO CHERRIES ON WOOD FENCE (*J. Ridge*).—Oak rent palings are so absorbent that we think there is no probability whatever that fruit trees would suffer in any way because of contact with the fence, sometimes tarred, especially that the aspect is west, which is not a hot one. Still, we are not certain whether it may not be rather too warm for Morello Cherries, as these are rather impatient of heat, and a dry arid atmosphere breeds black aphids on them freely. Plums and Pears would be more at home in such a position. If you wire the fence, fix the wires only an inch from the palings. From 4 inches to 5 inches would leave too great a space behind the trees, that might be injurious as creating a current of air. The palings should be close nailed to exclude wind draughts. In tying shoots to wires, the ties, whatever consisting of, should be crossed over the wire to prevent the shoots from touching it.

PLUMBAGO LARPENTÆ AND ZAUSCHNERIA (*H. B. Harvey*).—The first of these, provided you obtain good established plants in pots, should give no trouble whatever if it is not so placed as to become parched and dry in summer. The plant prefers a rather heavy soil and a low position where moisture will follow in due course. If you cannot provide this, the next best thing is the cooling influence of a block of stone. In March or April you may plant it, and if you so

desire you may pull to pieces the pot plants and prick out in small tufts over a large area the divisions you obtain. In this way a good-sized patch is easily obtained. The *Zauschneria* should be planted in a light soil with ample drainage, and be given a warm and sunny position. Stones placed about the tufts are frequently much appreciated, the underground stems or stolons piercing underneath and springing up around quickly make a good tuft. This plant does best when divided in spring; old plants divided in autumn often perish. Obtain good established plants in pots and plant in light or stony soil. The plant may be raised from seeds, and upon more than one occasion we have achieved much success with it as a wall plant.

DARK FLOWERS (*A New Reader*).—The following would prove suitable: Roses Abel Carrière, Prince C. de Rohan, Emperor, Eugene Furst, Louis Van Houtte, Victor Hugo, and Charles Lefebvre; Sweet Peas Black Knight and Othello; Carnations Acquisition, Eichendorff, Prince Bismarck, Royal Standard, Uhlund, Uriah Pike, and W. T. Barrie; Early Chrysanthemum Black Hawk; Clematis Gipsy Queen; Cactus Dahlias Sambo, General Butler, J. H. Jackson, and Sailor Prince; Pansies Beauty, Leader, Matthew Dalton, Senator, Thomas Kitchie, and William Fulton; Violas Max Kolb and Acme; Pentstemons De Saussure and Paul Cambon; Phloxes Burns, Ampère, Edmond Andran, Ed. Lockroy, and Le P. Hacquet; Pyrethrums Hobart Pasha and Gloire de Stella; and Salpiglossis. For the greenhouse you might have some of the Roses mentioned, some of the darkest Cinerarias, as well as the following: Canna Black Prince, early-flowering Chrysanthemum Black Hawk, some of the Carnations mentioned above, and fancy Pelargoniums Emperor of Russia, Beauty of Oxtou, and Miss Lily Cannell. Among zonal Pelargoniums grow Henry Jacoby, Jules Laborde, Turtle's Surprise, Black Vesuvius, and Rudyard Kipling. Perhaps readers can suggest other very dark flowers.

SEEDS FOR GARDEN (*Surrey*).—We have gone carefully through your gardener's list of seeds he requires for a vegetable garden, exclusive of Potatoes, about 100 rods in area. Only in a few cases can the quantities be regarded as large, and even then a gardener finds it needful to have some extra seeds in hand to enable him to make a second, or even third, sowing should earlier ones fail. Our chief exception is taken to ten pints of Peas as excessive; six pints should be ample. Sowing a pint in a row of 36 feet is much too thick. We do not write that on any ground of meanness. To sow Peas or, indeed, any seeds too thickly is to defeat the object of the sower, as the plants inevitably suffer from overcrowding later. Our own plan invariably is to make a pint of Peas sow an 80-foot run of row, and that is amply thick. The 5oz. of Broccoli may well be reduced to as many half ounces as giving plenty of plants. The Kale and Savoy may be equally reduced. Four ounces of Onion seed in so many varieties, one of which may be Rocca, for autumn sowing should be enough, as Onion seed is always too thickly sown. The 1½oz. of Carrot—a moderate quantity—should be in two varieties; one of Early Nantes or similar variety, and the ounce of Intermediate for main-crop. Two quarter ounces of Cauliflower should suffice. There are various things, such as Radish, Lettuce, Turnip, Spinach, Mustard and Cress, Cauliflower, and Celery, of which some two or more sowings have to be made at diverse intervals. Naturally the demand for vegetables from a garden is largely dependent on the number of consumers in the household, but a good deal depends also on the economy with which they are used in the kitchen. If there is a surplus it is well utilised, if not otherwise used, by feeding poultry and pigs, as these creatures make manure. Satisfactory crops depend on good soil, liberally manured, deeply worked, ample summer attention, and thin sowing.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.
FLORAL COMMITTEE (FEBRUARY 14).

THROUGH pressure on our space we were unable to insert these notes last week.

Present: Mr. George Paul (chairman), Messrs. H. B. May, C. T. Drury, John Green, C. E. Pearson, R. C. Notcutt, G. Reuthe, Charles Black, J. Jennings, C. J. Salter, Charles Dixon, J. F. McLeod, William Howe, W. Bain, Charles Jeffries, R. Hooper Pearson, H. J. Cutbush, E. T. Cook, J. Hudson, W. Cuthbertson, G. Gordon, W. P. Thomson, W. J. James, Harry Turner, E. H. Jenkins, and Rev. F. Page Roberts.

Messrs. Cutbush and Sons, Highgate, contributed a beautiful group of alpine and allied plants, many of them choice, and all beautiful and well grown. Quite a representative lot of dwarf flowering shrubs appeared in the background. Some fine forms of *Tulipa kaufmanniana*, as, e.g., *aurea*, *coccinea* and *aurantiaca*, were noted. Silver-gilt Flora medal.

The Misses Hopkins, Knutsford, staged Christmas Roses in two varieties, also coloured Primroses, *Primula elatior* *cœrulea*, hardy Heaths, Hepaticas, and the like.

Messrs. J. Cheal and Sons, Crawley, had a nicely disposed rockery arrangement, in which Junipers and other shrubs divided, with alpine in variety, the attention of the visitor. Double Primroses were very beautiful. Cobweb Houseleeks and Saxifragas were well arranged on a well-constructed rockery.

Messrs. Hugh Low and Co., Enfield, staged a group of Aucubas and Acacias in variety, together with Orange trees in fruit and Boronias, the latter beautifully scented.

The Fern group from Messrs. J. Hill and Son, Lower Edmonton, contained many beautiful species. Silver Banksian medal.

A table of Chinese Primulas came from Mr. W. Palmer, Andover Nurseries. The chief sorts shown were Island Queen (pink) and Queen Alexandra (blush white). The plants were well grown, compact, and nicely flowered, and were all of the semi-double flowered kinds. Silver Banksian medal.

Messrs. Carter and Sons, Holborn, also filled a table with choice Chinese Primulas in variety, groups being disposed freely at intervals. Rose Queen, Crimson King, Prince of Wales (semi-double pink), and Princess of Wales (semi-double white) were among the best in a very large number. Silver Banksian medal.

The Hardy Plant Nursery, Guildford, had a small group of alpine, in which Hepaticas, Lenten Roses, Adonis, and the hardy Cyclamen were noticed.

Mr. H. B. May, Edmonton, staged a fine table in which the decorative value of Crotons, choice Ferns, Palms, and stove plants vied with each other. The group was very nicely arranged, the items well disposed. Silver Flora medal.

Messrs. James Veitch and Sons, Limited, Chelsea, filled a large table with *Coleus thyrsoides*, fine blue. *Eupatorium vernale* (white), *Primula kewensis* (yellow), and *Cheiranthus kewensis*, a set of four valuable winter-flowering plants useful in decoration or for cutting.

Messrs. R. Veitch and Son, Exeter, showed hybrid Heath *E. Veitchi* (*usitanica* X *arborea*), a very remarkable plant, with white bell-shaped fragrant flowers. The large bush was a sheet of buds hardly yet opened.

Two forms of *Lachenalia* came from Mr. Moore, Glasnevin.

A showy lot of *Hippeastrums* came from Mr. K. Drost, Richmond; these were mostly of light shades, and in a bed of *Pteris tremula* were very effective. Silver Banksian medal.

Messrs. Cannell and Sons, Swanley, filled a large table with their strains of *Primula sinensis*, the white sorts were especially good, large—indeed handsome in flower—and very striking. Polar Star, a white, will make a fine table or conservatory plant. Silver-gilt Flora medal.

Violet Countess of Caledon came from the Hon. Mrs. Albert Brassey, Chipping Norton. The flowers are large, double, fragrant, and pale blue in colour.

Romulea nivialis (with orange and blue flowers), *Cyclamen ibericum*, and *Iris reticulata* in variety came from Miss Willmott, Warley Place.

Messrs. Cannell, in addition to Primulas, set up a score of vases of their ever-striking winter *Pelargoniums*, with a specimen of *Eupatorium petiolare*.

Loropetalum chinense, *Dracena* The Queen (a narrow-leaved kind), with Aucubas, came from Mr. L. R. Russell, Richmond.

The hardy Cyclamen from Messrs. Jackman and Son, Woking, were a very charming lot, some dozens of pots of these pretty spring flowers being shown. Bronze Banksian medal.

Messrs. Barr and Sons, Covent Garden, contributed Snowdrops, Hyacinths, fine tufts of *Adonis amurensis*, handsome gatherings of *Iris stylosa*, together with *Crocus*, &c. *Hepatica angulosa alba* is a charming plant.

The group of forced shrubs from Messrs. Cutbush and Son, Highgate, was quite a beautiful feature.

Mr. J. Robson, Altrincham, showed a basket of Tree Carnation Flamingo, a rich crimson-scarlet.

Messrs. T. S. Ware, Limited, Feltham, staged hardy plants in pans, of which alpine constituted a large part. There were hardy Cyclamens, *Sarracenia purpurea* in flower, *Adonis amurensis*, *Iris stylosa* in variety (of which *I. s. alba* is a very beautiful plant), *Eranthis cilicicus*, Hepaticas, Primroses, &c. *Primula obconica*, showing great variation, was also in this group.

Messrs. Peed and Sons, Norwood, contributed a large variety of alpine in pans, chiefly Sedums, Saxifragas, and the like.

Messrs. Ambrose and Sons, Cheshunt, had a showy table of cut flowers useful in decoration, Tulips, Carnations, Eucharis, and other plants.

Cyclamen persicum in pots came from Rev. H. Buckston, Sutton Hall, Derby (gardener, Mr. Shambrook). The plants were of large size and splendidly grown, the white-flowered forms especially so. Silver Flora medal.

Hardy spring flowers came abundantly and good from Mr. G. Reuthe, Keston, Kent. *Iris histrioides* major was very fine, also *I. reticulata* *purpurea*, and *Crocus* species were good and plentiful, while Saxifragas, Primroses, *Shortia galacifolia*, and others contributed to a highly interesting group of the earliest things. Silver Banksian medal.

Messrs. Sutton and Sons, Reading, filled a double table with their choice strains of Primulas, arranged in large masses, each colour or group represented by several dozen of plants; an exceptional effect was secured. Reading Blue, The Duchess (double), Crimson King (a grand colour, very intense), The Duchess (single), and The Czar—the last quite a new shade in deep violet, which we hope to refer to again—were among the more striking in a wonderful lot that mere description fails to do justice to. Silver-gilt Flora medal.

NEW PLANTS.

The following new plants received the award of merit: *Carex Vilmorini* from Messrs. Cannell.

Primula sinensis *His Majesty* from Sutton and Sons.

Crocus chrysanthus var. from Miss Willmott.

Rose (H.T.) *Prince de Bulgarie* from Messrs. Paul, Cheshunt.

THE HORTICULTURAL CLUB.

ANNUAL MEETING AND DINNER.

THE annual dinner of this club was held at the Hotel Windsor on the 14th inst., under the presidency of Sir John D. T. Llewelyn, Bart., about eighty members and guests, including many ladies, being present. Before the dinner the annual meeting of the club members was held, and it is very pleasant to note that this club, which practically represents the social side of the Royal Horticultural Society, deservedly shares in the success of the latter, both financially and numerically, Mr. Harry J. Veitch as treasurer being able to present a highly satisfactory report in both respects. The record of the club for the year, as presented by its secretary, Mr. E. T. Cook, also showed that a number of highly interesting papers have been read, and are contributed by many of the highest horticultural authorities and experts, the club thus forming an intellectual centre as well as merely a social one. The dinner was equally satisfactory in every way. The tables, thanks to the great kindness of Messrs. Veitch and Sons, were beautifully decorated with spring flowers, Palms, &c., to gratify the eye, while in the intervals of the toasts, which were distinguished by their terseness and brevity, the well-known Georgian Singers, under the direction of Mr. Harry J. Stubbs of St. Paul's Cathedral, also gratified the ear by their skillful rendering of a choice and varied programme. Mr. Charles T. Drury, as usual, contributed one of his original humorous recitations, "Tom Piper," which was greatly appreciated. After the usual loyal toasts, the toast of "The Royal Horticultural Society" was eloquently proposed by Mr. George Paul and responded to by Mr. W. A. Bilney as one of the new members of the council. Sir John D. Llewelyn, Bart., proposed the toast of "The Club" in sympathetic terms, to which Mr. Harry J. Veitch in his usual genial style responded. The toast of "The Secretary" was warmly responded to. That of "The Visitors" was proposed by Mr. G. Monro, and Mr. H. B. May proposed as a supplementary toast "The Health of Mr. Veitch." In the course of the speeches generally the intimate and pleasant relations of the club to the Royal Horticultural Society were repeatedly alluded to, and suggestions were also appropriately made as regards the wider extension of this comparatively local *entente cordiale* to our horticultural friends abroad, the art and craft of horticulture constituting a kindly freemasonry which knows no territorial limits.

The members of the club were pleased to hear that the Rev. H. H. Dombain, its secretary from the inception, is still enjoying good health, and a congratulatory telegram conveying their good wishes was despatched to him.

CROYDON HORTICULTURAL SOCIETY.

ON a recent Tuesday the Croydon and District Horticultural Mutual Improvement Society's fortnightly meeting took place, the lecturer for the evening being Mr. C. H. Curtis, who came as a delegate from the British Gardeners' Association to expound the aims and objects of this association, which was started some twelve months ago. The views, laid out so clearly by the lecturer, received encouraging support from those present, and it was agreed that at the next meeting a decision should be arrived at whether a local branch of the association, apart from the Croydon and District Horticultural Mutual Improvement Society, should be founded in Croydon.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE opening meeting for the year was held in the rooms of the National Bible Society of Scotland, 5, St. Andrew Square, Edinburgh, on the evening of the 7th inst. There was a large attendance, presided over by Mr. J. W. M'Fattie, superintendent of the city parks, the president of the association. Mr. M'Fattie gave an extremely interesting address, in the course of which he remarked that the association had proved a great public benefactor, especially by the work it had done in bringing various flowers, such as the Chrysanthemum, prominently before the public. He also brought before the members a matter

which deserves the greatest consideration from the association. This is the desirability of paying more attention than hitherto to the benefit fund of the association. As he pointed out, ways and means should be found for making provision for the widows and orphans of their brother gardeners. Among other things which might be considered was that of having a bazaar for the purpose. The address was very favourably received.

Mr. Charles Comfort, Broomfield, Davidson's Mains, afterwards gave a pleasant account of a trip to Connemara and elsewhere in Ireland, illustrated with a number of excellent time-light views of places visited. Among other gardens visited was that of the Duke of Manchester, at Kylemore, Galway, and the fine Botanic Gardens at Glasnevin, and of Trinity College, Dublin. The whole lecture was most interesting, and Mr. Comfort was heartily thanked for so clearly laying before the members his impressions of what he had seen.

CARDIFF GARDENERS' ASSOCIATION.

AT a meeting held at the Sandringham Hotel on Tuesday, the 7th inst., Mr. Tom Clarke presiding, Mr. Jones, representative of the Newport Gardeners' Association, delivered a splendid lecture, entitled, "Annals, and How to Grow Them." Nearly all the best subjects were mentioned which were deemed most suitable for decorative and show purposes. The discussion was one full of interesting details. The best thanks of the association were accorded Mr. Jones for his able lecture. J. J.

DUNDEE HORTICULTURAL ASSOCIATION.

THE usual monthly meeting of the above association was held in the Technical Institute, Dundee, on the evening of the 7th inst. There was a good attendance, presided over by Mr. William Grant, Fernhall Gardens. The paper for the evening was "Sweet Peas for Exhibition," but, unfortunately, however, Mr. William Simpson, Wemyss Castle Gardens, the author, was unavoidably absent. The paper was, however, admirably read on his behalf by Mr. Tiddell of the same gardens. Mr. Simpson treated the cultivation of Sweet Peas for exhibition in a thoroughly clear and practical manner, giving full instructions regarding the best methods of cultivation to adopt, and also detailing what he considered the best varieties for the purpose. At the close the tone of the discussion showed universal appreciation of the paper, for which Mr. Simpson was heartily thanked.

GARDENERS' ROYAL BENEVOLENT INSTITUTION.

THE annual social evening of the Liverpool auxiliary was held on Saturday week under most favourable auspices, and was considered to be the best yet held. The chairman was Dr. J. G. W. McFall. The crowded audience testified to their appreciation of the programme by rounds of applause. As usual the room was decorated with plants and cut flowers through the kindness of Messrs. Webb and Sons, Messrs. R. P. Ker and Sons, Mr. C. A. Young, &c. The chairman, in his address, urged the claims of the institution upon all gardeners, and those that loved gardening, so that their declining days, if necessary, might be assisted by the practical sympathy of the institution. A number of resolutions were passed with applause, and included thanks to the chairman, the donors of plants and flowers, the secretary and treasurer (Messrs. R. G. Waterman and A. J. Crippin), and the artistes. Especially gratifying was the announcement of a new subscriber of two guineas and donations of fourteen guineas.

SCOTTISH PANSY AND VIOLA ASSOCIATION.

THE general meeting of this society was held in Glasgow on the 8th inst., Mr. John Stewart, president, in the chair. The report showed that twenty new Pansies, six new Violas, one new bedding Lobelia, and one new early-flowering Chrysanthemum had been certificated during last season. Office bearers and judges for 1905 were appointed, Mr. R. S. Milne, president, and Mr. John Smellie, Pansy Gardens, Busby, secretary. After the business of the society was over Mr. Alex. Sweet of Cathcart delivered a characteristic lecture on "Hardy Flowers," dealing specially with *Liliums* and the rarer varieties of herbaceous plants, all of which he had grown successfully in his own garden. He also expressed decided views on the varieties most suitable for Scotch gardens, and how they should be displayed to advantage. Messrs. Stewart, Fife, Campbell, Robertson, and others expressed their appreciation of the paper, Mr. Sweet being accorded a hearty vote of thanks.

DUNLOP HORTICULTURAL SOCIETY.

THE annual meeting of the above society was held in the Public Hall, Dunlop, on the evening of the 8th inst. The annual report of the secretary and treasurer submitted to the meeting was generally of a satisfactory character, there being a small balance to the credit of the society. The report was adopted, and the following office-bearers appointed: President, Mr. W. Clement, Wellbank; vice-president, Mr. T. Mackie, Hapland Mills; secretary and treasurer, Mr. J. Thomson, Newhouse. A committee was also appointed, and it was agreed to introduce some new features into the show to be held on September 9.

PROFESSIONAL GARDENERS' FRIENDLY BENEFIT SOCIETY.

THE annual dinner of this society was held in Leeds on Wednesday, the 8th inst. Between forty and fifty were present, and a very enjoyable evening was passed. The president, Mr. G. Stubbs, was in the chair, and was supported by Mr. Haw, the vice-president, and the following honorary members: Mr. Batchelor of Harrogate; Mr.

W. Green of Garforth; Mr. Evans represented Messrs. Clibran; Mr. Hope, Messrs. Dickson, Brown, and Tait; and Mr. Holden, Messrs. William Cutbush and Sons. Letters regretting their inability to attend were received from Lord Allerton, Rowland Barran, Esq., M.P., James Oxley, Esq., J.P., and others. After the usual loyal toasts the secretary presented the twenty-eighth annual report and balance-sheet.

Mr. Batchelor, in proposing "Success to the Professional Gardeners' Friendly Benefit Society," said he was pleased to be once more present among them and at hearing such a very satisfactory report. It appeared to him that the society was on a very good basis and promised well for the future. Mr. Joseph Smith and Mr. Henry Wright (trustees) responded.

Mr. Green, responding on behalf of the trade, congratulated the members on the continued success of the society, but he would like to see a much longer list of honorary members, and felt sure there were many interested in horticulture who, if they knew of the objects and aims of the society, would be pleased to subscribe. He and Mr. Batchelor were made honorary members thirty-five years ago, and it was always a great pleasure to come among the members and to do what they could to assist them in their good work.

The treasurer proposed "The Health of the Honorary Members," acknowledging the valuable assistance they had rendered to the society from its commencement. Messrs. Evans, Hope, and Holden briefly responded, the former expressing his surprise that there were not many more members. He could only attribute it to the fact that the society was not sufficiently well known, and suggested that the committee should advertise in some form or other.

The secretary, in reply to Mr. Evans's remarks, said that hitherto no special efforts had been made to make the society known, but this year they were distributing large quantities of copies of rules with the report and balance-sheet. They would also be pleased to supply small quantities to the trade secretaries of societies of gardeners and others who were willing to distribute them.

Mr. H. Carter, secretary of the Leeds Paxton Society, after proposing "The Press," called attention to the circulars which had been distributed in the room regarding the newly-formed British Gardeners' Association, and hoped that all who could would attend a meeting, to be held in Leeds on Saturday night, for the purpose of considering the advisability of forming a branch for Yorkshire. The remainder of the evening was pleasantly passed by songs, &c., rendered by members and friends.

G. CARVER.

BRITISH GARDENERS' ASSOCIATION.

IN addition to those previously reported meetings have been held at the following places: At Waltham Cross, on the 7th inst., Mr. J. Weathers, horticultural instructor for Middlesex, in the chair. Mr. W. Watson, honorary secretary of the association, being the principal speaker. It was unanimously resolved to form a local branch of the association, and gardeners resident in the district who are interested in the movement are requested to communicate with Mr. W. Isbell, 5, St. Mark's Road, Bush Hill Park, Enfield, who has agreed to undertake the duties of honorary secretary (*pro tem.*). At Croydon, also on the 7th inst., there was a well-attended meeting of members of the Croydon and District Horticultural Mutual Improvement Society and others to hear Mr. C. H. Curtis, who is a member of the committee of selection of the association. The objects and programme of the association, so clearly expounded by Mr. Curtis, met with the approval of the meeting, and it was agreed to further consider the formation of a local branch of the association at the next meeting of the society. At Norwich, on the 8th inst., the February meeting of the East Anglian Horticultural Club was addressed by Mr. George Gordon, V.M.H., as a delegate from the association. At Leeds, on the 11th inst., a large gathering of the gardeners of the district assembled at a meeting held under the auspices of the Leeds Paxton Society to hear Mr. George Gordon, V.M.H., speak upon the British Gardeners' Association. As a result of the meeting the following resolution was carried unanimously, "That a branch of the British Gardeners' Association be formed in Yorkshire, with Leeds as a centre, and that this meeting pledges itself to give every possible support to the movement." A committee was elected to actively carry on the work. Mr. George Carver, 75, Northbrook Street, Chapel Allerton, Leeds, was elected honorary secretary. As secretary of the Professional Gardeners' Friendly Benefit Society Mr. Carver is well known and respected throughout the county, and all Yorkshire gardeners interested in the movement are invited to communicate with him.

NATIONAL CHRYSANTHEMUM SOCIETY.

ON Monday evening, the 13th inst., a meeting of the executive committee of the above society was held at Carr's Restaurant, Strand, when Mr. Thomas Bevan presided. Mr. Richard Deane, the secretary, was again in his accustomed place, to the evident satisfaction of the members, and after reading the minutes of the previous meeting, submitting a rough financial statement and preliminary correspondence, he drew attention to the importance of the meeting, which was the first one held after the annual meeting of the society. The agenda was a lengthy one, the first item of importance being the election of members to fill vacancies on the floral committee occasioned by resignation and by rule requiring one-third of that body to retire annually. The following gentlemen were elected: Messrs. Higgs, Kenyon, J. Lyne, G. Prickett, G. Ver, C. H. Curtis, and Ellis.

The report of the market show committee was then presented, from which it appeared that the committee

recommended a repetition of the show of market varieties in 1905 on the same lines as that of 1904; that it be held on December 13 next; that the competitive classes be limited to Chrysanthemums; and that application be made for use of the French Flower Market at Covent Garden for the purpose of the show. Upon the motion of Mr. D. Ingamells the report was adopted.

The election of the schedule revision committee was then proceeded with, the result being that Messrs. Blick, W. Howe, Prickett, Ingamells, Kenyon, Simpson, Oliver, J. Green, and Simmonds were appointed. The finance committee remains the same as last year.

The schedules of prizes for the October, November, and December shows in the present year were settled, and the judges appointed. It was also resolved that Mr. T. Bevan, Mr. Witty, and Mr. Harman Payne be the deputation appointed to represent the National Chrysanthemum Society at the International Horticultural Show in Paris in May next, with power to add to their number.

Several suggestions were made as to the annual outing, and the election of new members brought the meeting to a close.

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE monthly committee meeting of this society was held at the Caledonian Hotel, Adelphi Terrace, Strand, on Monday evening last, Mr. Thomas Winter in the chair. Thirty-five new members were elected, this being the largest number ever elected at one time, this result in great measure being due to an article which appeared in a horticultural journal. The sick pay during the past month was heavy, the amount paid out being £51 11s. Several members were allowed to transfer from the lower to the higher scale. The annual general meeting will be held on Monday, March 13 next, particulars of which will be duly announced in the Press.

NOTES FROM THE MARKETS.

COVENT GARDEN MARKET.

THERE are now large supplies of cut bloom on the market; trade is very uncertain, and it is difficult to give approximate prices. These vary from day to day. Roses are now more plentiful. The old favourite General Jacqueminot is the most prominent red; there are also some good blooms of Liberty. Caroline Testout is very fine. La France, Mme. Abel Chateaux, Mme. Hoste, Jules Grolez, Papa Gontier, Safrano, and Niphetos are all fairly plentiful now. Maréchal Niel is also seen, and Catherine Mermet, but most of these are pale in colour. Daffodils are very plentiful. Of bicolors, Horsfieldi and princeps are prominent; Emperor, Henry Irving, Sir Watkin, Golden Spur, and the white moschatus albus are the principal sorts grown. Orchids in great variety are now seen; Violets are more plentiful; Snowdrops, Wallflowers, Myosotis, Primroses, and other spring flowers are now coming in. Lilliums, Lily of the Valley, Eucharis, and other white flowers are plentiful. Higher prices are asked for Gardenias. Pot plants are well supplied, especially Azaleas, Cinerarias, Ericas, Genistas, Cyclamen, and Begonias. Daffodils in pots are also prominent. There are also large supplies of Ferns, Palms, and other foliage plants.

WHOLESALE PRICE LIST.

FLOWERS.		s.	d.	s.	d.
Anemones	per dozen bunches	2	0	4	0
Azalea indica alba	"	"	3	0	5
" mollis	"	"	3	0	5
Bouvardia	"	"	6	0	12
Calla aethiopica	"	"	6	0	8
Camellias	"	"	2	0	4
Cattleyas	"	"	10	0	12
Carnations	"	"	18	0	30
" special American varieties	"	"	4	0	7
Cyclamen	"	"	6	0	8
Cypripedium insigne & others	"	"	2	6	3
Dendrobium nobile	"	"	2	6	3
Daffodils, yellow trumpet	"	"	3	0	6
" double	"	"	4	0	6
" princeps	"	"	4	0	6
Eucharis amazonica	"	"	2	0	3
Euphorbia jacinthiflora	per bunch	2	0	3	0
Freesia refracta alba	per dozen bunches	3	6	4	6
Gardenias	"	"	4	0	6
Hyacinths, Roman	"	"	6	0	8
Lilac, English forced	per bunch	3	0	4	0
" French	"	"	3	6	4

FLOWERS (continued).

Lilium auratum	per bunch	2	6	3	0
" longiflorum	"	"	4	0	5
" lancifolium album	"	"	2	0	2
" rubrum	"	"	2	0	2
Lily of the Valley	per dozen bunches	6	0	15	0
Lycaste Skinneri	"	"	5	0	15
Marguerites, white	bunches	3	0	4	0
" yellow	"	"	2	6	3
Myosotis	"	"	4	0	6
Narcissus, Paper-white	per dozen bunches	2	0	3	0
" Soleil d'Or	"	"	2	6	3
" Gloriosa	"	"	2	0	3
Odontoglossum crispum	"	"	2	6	3
Primula sinensis, dbl. white	bunches	5	0	6	0
Pelargonium (show), white	"	"	6	0	8
" (zonal), dbl. scit.	"	"	6	0	8
" salmon	"	"	6	0	8
Ranunculus	"	"	9	0	12
Roses (English)	"	"	3	0	8
" (French)	"	"	1	0	2
Snowdrops	bunches	1	0	2	0
Tuberose	"	"	0	6	0
" on stems	per bunch	0	9	1	0
Tulips, blue	per dozen bunches	6	0	9	0
Violets, blue	"	"	2	0	3
" Parma	"	"	3	6	5
Wallflowers	per dozen bunches	2	0	3	0

FRUIT.

Apples, English dessert	per sieve	4	0	12	0
" culinary	"	"	3	0	6
" American	per barrel	12	0	18	0
" Newtown Pippins	per case	16	0	18	0
Bananas, Jamaica	per bunch	5	0	10	0
" Canary Islands	"	"	8	0	14
Cob Nuts	per dozen lb.	5	0	6	0
Grapes, Alicante	per dozen lb.	12	0	24	0
" Gros Colmar	"	"	18	0	30
Lemons	per case	8	0	14	0
Oranges, Valencia	"	"	6	0	10
" Blood	"	"	8	0	9
" Jaffa	"	"	10	0	12
" Jamaica	"	"	5	0	7
" Seville	"	"	6	6	12
Pears	"	"	10	0	12
Pines, St. Michael's	each	2	6	5	0

GARDENING APPOINTMENTS.

MR. G. PRESTON, for the past three years general foreman to Mrs. Brightwen, The Grove Gardens, Stanmore, Middlesex, has been appointed head gardener to Sir William Crump, Glenhorne, Harrow Weald, Middlesex, and enters on his duties to-day.

MR. THOMAS MCINN, foreman in the gardens at Belladrum, Beaulieu, N.B., and previously foreman for over three years in the gardens at Oakmere Hall, Hartford, Cheshire, has been appointed head gardener to Captain Hawkes, Achnaryn, Inverness-shire, N.B., and entered on his duties on the 9th ult.

MR. JAMES GIBSON AND WELBECK ABBEY.—A very wide circle of gardeners will learn with great satisfaction that so able and estimable a member of the profession as Mr. James Gibson, formerly of Great Marlow, has been appointed by the Duke and Duchess of Portland as their head gardener at Welbeck Abbey. The duties will be entered upon shortly. Mr. Gibson is known not only as one of our finest vegetable growers and exhibitors, but also as a first-rate all-round gardener. He has for some time been a member of the fruit and vegetable committee of the Royal Horticultural Society, and was also on the executive of the Gardeners' Dinner of 1903. He has the hearty congratulations of a wide circle of friends.

MR. J. BROWN, late of Market Rasen, has been appointed head gardener to Sir George Mackenzie, Tempsford Hale, Bedford, and enters on his duties at once.

* * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

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THE GARDEN

No. 1737.—VOL. LXVII.

MARCH 4, 1905.

THE LAWN.

OF all the pleasant accessories to a beautiful garden, not one can well surpass, in the genuine interest and pleasure it affords, that of a well-kept lawn, whether it may be that of many acres surrounding palatial homes, where it furnishes a glorious setting for noble and stately trees and shrubs, or to the more modest ones attached to humbler residences. Not only is a well-kept lawn beautiful in itself, but it also ministers in no small degree to the health and happiness of its owners by the opportunities it offers for the enjoyment of outdoor games and recreations. On the other hand, we know of nothing more depressing to look upon than a neglected lawn. Possibly outdoor games, such as tennis and croquet, were partaken of and enjoyed more last year than for many years past, in consequence of the long-continued warm and beautiful weather, and we can well imagine how the thoughts of many, with lengthening days, will be turning longingly to the time when this enjoyment can be resumed. This pleasant anticipation, we are afraid, is often marred by the fact that the lawn is out of order. Things must be put straight at once. Should there be any serious rises and depressions, the extent of these troubles may soon be ascertained by the use of the spirit level, and if it is found impossible to satisfactorily patch up the ground there is no alternative than taking off the turf, dig the land up, have it properly levelled by a competent hand, and the turf relaid, or, if the turf happens to be poor and weedy, a far more satisfactory plan would be to have it resown with the best lawn grass seeds. This, of course, is expensive, and, besides, entails a considerable delay in the time when the lawn would again be available for use. Those with a trained eye for levels (if one may use the term) can tell sufficiently near for all practical purposes where any lumps and depressions occur. When found the turf should be removed and the soil taken away or added to, as the case may be, until those parts are brought to the same level as the other portions of the lawn, and the turf carefully relaid, the same care having been taken in its removal. Maybe the lawn is overrun more or less with coarse grass and

rough weeds, such as Plantains, Daisies, Dandelions, &c. Now is the time, in the absence of frost, to uproot these robbers, and the best way to do so is to use the "gardener's spud," which is a miniature spade with a long handle. The blade is small and narrow, and should always have a good edge to it. The way to use it in the case of these troublesome weeds is to push it obliquely through the roots of the weeds, severing them completely 2 inches or 3 inches under the surface, when they can easily be pulled up. Every weed should be cleared away. Never mind if the lawn looks half bare when the work is finished. Some of the coarser and more persistent of the weeds may reappear in the course of a year or two years' time. If so, the same operation is resorted to again, and their destruction will be final after a year or two.

Moss is very troublesome on many lawns, more especially on those in damp positions or on land which happens to be very poor. The remedy in the first case is to effectively drain the ground, and in the second to improve the fertility of the soil. Presuming that the weeds have been extracted, the next process to take in hand will be to rake the lawn all over with an iron rake. Stirring the surface of the grass by working the rake vigorously backward and forward until the whole of the lawn has been so treated, rooting up all the moss there may happen to be in the operation, which must be carried out on a dry day.

Should the lawn be too large to be thus treated with a rake, a harrow must be substituted. Lawns that have been badly infested with weeds and have been treated as advised will have the appearance more or less of an arable field. This does not matter; the grass after treatment will come round with marvellous rapidity later on.

The next step should be to have a heap of soil prepared as follows for dressing the grass with: To half a cartload of ordinary garden soil add the same quantity of the best well-rotted cow or horse manure that can be had, and the same of gritty road scrapings. Add to this one bag of the best-prepared artificial lawn manure (which can be obtained from any of our high-class seed merchants). Mix the whole well together and apply to the lawn as soon as possible at the rate of one good barrow-

load to the perch or pole, raking it well in with a wooden rake and choosing a dry day for the purpose. The land may now be left alone until the grass begins to grow (about the first week in March). It should then be again raked over, using a wooden rake, and at the same time well rolled with a moderately heavy roller. It will be observed soon after this operation, especially if we have fairly warm showery weather, that the roots of the grasses have imperceptibly absorbed the dressing of soil. The grass should again be left untouched until the last week in March, when it should have another dressing of the same compost; this time less than half the quantity applied before will suffice, and this should be passed through a 1-inch sieve so as to take away any coarse lumps or stones. Before applying this dressing, the gardener carrying out the work must find out the lumps or elevations which have been reduced, breaking the surface into small particles with a fork to the depth of 2 inches, otherwise the seeds to be now sown would have a difficulty in starting into growth. After this application of the second dressing of soil the best lawn grass seeds must be sown; these can be bought already prepared. Half a pint of seed to the square pole of land, sowing it thicker, of course, on the bare patches, but all the same sowing some seeds all over the lawn as soon as the soil is applied, and before it is raked in.

Choose a calm dry day for carrying out the work. The seed as soon as sown should be well raked into the soil, using a wooden rake for preference, and afterwards well rolled in two or three times over, so as to press and fasten the seeds well to the soil, in which at this time of the year they will soon germinate and make a quick growth, clothing the lawn with a deep green and beautiful verdure.

The after treatment will now consist of rolling it at least once a week; this will result in the roots of the young grasses getting a better hold of the soil, and thus enable them to establish a good growth in the least possible time. The grass should not be cut the first time until it is about 4 inches or 5 inches long, and then with a sharp scythe only. If cut with the machine the first time there is danger of the knives "lugging" and pulling up the young grass by the roots. Afterwards it may be cut with the lawn mower in

the usual way. If close attention after this is given to rolling and mowing (and watering should the weather prove very dry) the lawn may be played on towards the middle of May, but if playing can be deferred a little longer it will all be in favour of clothing the ground with a thicker and better carpet of grass.

ENGLISH *v.* AMERICAN APPLES.

By an accident I have not yet seen Mr. G. Bunyard's remarks on Colonial fruits to which Mr. T. Arnold refers on page 77. But if Mr. Bunyard has ventured to give in print the preference to American dessert Apples—or to some varieties—over our best English fruit, I am glad that he has openly given the weight of his name to a truth which has for a long time needed frank admission. Patriotism is one thing, and to live in a fool's paradise is another. We Englishmen are fatally fond of assuming that all our home products are, by some decree of Providence, better than those of the foreigner, instead of setting ourselves to make them better. What is really the position of the English market as regards dessert Apples? We have one supremely good Apple, Cox's Orange Pippin, which at its best is as good as, or possibly better than, the finest American variety, namely, Newtown Pippin, though these two are so different as to make comparison somewhat futile. But Cox's Orange, though it can be kept firm to the touch and bright to the eye until well on in spring, loses its sprightliness of flavour and crispness of texture after Christmas, and, to my mind, is seldom at its best after the end of November. From January onwards we must fall back upon hopelessly second-rate English Apples, notwithstanding what the more curious fanciers may assert about this or that variety; second rate, that is, at all events, to that splendid fruit the Newtown Pippin, which, though sufficiently dear, is obtainable in perfect condition almost until early summer fruit comes in. It is mere folly to deny the qualities of this Apple—heavy, yet of crisp, digestible texture, sugary and retentive of its juice, and high flavoured, though its flavour is totally different from that of Cox's Orange. I do not make this admission without regret, for I have myself expended much care and some capital in laying down land to orchard. Sometimes I fear we are contending against hopeless odds in the matter of climate. So long as spring frosts and cold, wet summers make our crops *nil* for intermittent years or series of years it is difficult to be sanguine. Moreover—what is more to the point of the present discussion—the American summer of certain and continued heat gives to Apples a peculiarly finished quality which we in England can rarely or never command. I have often observed, though, curiously enough, I have never seen the fact noticed in print, that American Apples, though squeezed in their barrels out of all roundness into squares and polygons with innumerable facets, yet never decay from these obvious bruises. English Apples would decay at once if similarly treated.

The reason, no doubt, is that the American fruit is so thoroughly matured by the sun in its saccharine juices as to be rendered almost aseptic. Mr. Arnold decries foreign Apples as mealy and tough. Now these are precisely the defects which I should attribute to too many of our own Apples. That mainstay of our midseason market, Blenheim Orange, has always seemed to me wholly over-rated because of its invariable meanness within a few weeks of gathering. Even Cox's Orange is not really crisp for more than eight or nine weeks. Ribston Pippin is very tough and indigestible. After a certain age we value our teeth—they are so expensive—and in the late winter and early spring I never trust mine to an English dessert Apple. Broadly speaking, there is a firmness yet crispness of texture, with easy

digestibility, in such fruits as Newtown Pippin and King of Tompkin's County, which we may at present look for in vain in English Apples.

It is well to admit facts, but is there any remedy? We cannot create sunlight, but we can let our choicest Apples have the full benefit of what summer we get by thinning out both boughs and fruit. Such an Apple as Cox's Orange will always sell, and the public should be induced to appreciate its full excellence during the two months after gathering. I am an entire unbeliever in cold storage, as seriously impairing flavour and texture, but—and this is my chief point—we should set to work to breed finer late dessert Apples, aiming at combining in the same fruit the Ribston flavour, our peculiar English possession, with the crisp flesh of the Newtown Pippin and the keeping quality of the latest winter varieties. Scarcely anything has yet been done in the way of intelligent and industrious breeding of Apples on a considerable scale, and nearly all our standard kinds are chance seedlings or have come to us nobody knows how. Mr. Charles Ross, Messrs. Veitch, and one or two others have touched—but only just touched—on the undertaking. Meanwhile, and until the seedlings have fruited and overspread the land, let us make the most of our supremacy in kitchen Apples while we have it. It is true that even here the overseas competition is threatening. A remarkably fine sample of that unrivalled cooking Apple, Wellington, comes from Tasmania, but as yet it is too dear for ordinary folks. If some clever raiser can put the fruit of Wellington on to a tree that will flourish in every English orchard he will have deserved well of his country.

G. H. ENGLEHEART.

PRIZES FOR GARDENERS. MARCH.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
are offered for the best Essays on the subject of
SUMMER GARDENING.

The essay must not exceed 1,000 words in length; it must describe the best way (in the writer's opinion) of keeping the Flower Garden beautiful during June, July, August, and September. The various plants recommended must be correctly described with regard to height, colour of flowers or foliage, and time and duration of flowering. More points will be given to the essayist who is able to show how the garden may be made attractive throughout the summer by one planting only, than to those who advocate successional plantings. The prizes will be mainly awarded for the information given. Style of writing will not be so much considered. The object is to have plain practical gardening experience. The first prize essay will be published.

FORTHCOMING EVENTS.

March 6.—Mansfield Horticultural Society's Meeting.
March 7.—Sevenoaks Gardeners' Society's Meeting.
March 8.—Meeting of the Sheffield Chrysanthemum Society.

NOTES OF THE WEEK.

Royal Horticultural Society's Examinations, 1905.—The Royal Horticultural Society will hold an examination in cottage and allotment gardening on Wednesday, April 5 next. This examination is intended for, and will be confined to, elementary and technical school teachers. It has been undertaken in view of the increasing demand, especially in country districts, that the school teachers shall be competent to teach the elements of cottage and allotment gardening, and of the absence of any test whatever of such capacity. The general conduct of the examination will be on the same now well-known lines as that of the more general examination, save in obvious points to which they would not apply. Intending candidates are requested to send in their names early in March. A silver-gilt Flora medal will be awarded to the candidate gaining the highest number of marks, and each candidate will receive a certificate of the class in which he has passed. The society's annual examination in the principles and practice of horticulture will be held on Wednesday, April 12 next. A copy of the syllabus, covering both examinations, will be sent to any person on receipt of a stamped and directed envelope. Questions set at the Royal Horticultural Society's examinations, 1893-1904, may also be obtained at the society's offices, Vincent Square, Westminster, price 1s. 6d.

National Dahlia Society.—I beg to enclose a copy of the schedule which is now being issued to our members. You will notice in the report of the committee that although the prize money was very much increased last year, yet we have been able again to further increase it by nearly 20 per cent. We have also added a few more classes. We now want the exhibitors to come forward, and as there has been a recent change in the secretaryship, I shall be obliged if you will kindly state in your paper that I shall be pleased to forward a schedule to anyone desiring the same.—H. L. BROUSSON, *Hon. Secretary, Boyton, Foot's Cray, Kent.*

Early flowers in Donegal.—It may interest you to know how early some flowers are in this northerly situation and after an exceptionally stormy winter. I had out on Valentine's Day: Iris reticulata, Scilla sibirica, Chionodoxa, double Daffodils, Snowdrops, Leucojum vernum, Violets (blue and white), Primroses (blue, common, double white, crimson, and yellow), Polyanthus, Daphne Mezereum, and Laurustinus. Most of these were only planted late in October.—THOMAS CRADOCK, *Old Eden, Rosbeg, County Donegal.*

Potato Lapstone Kidney.—“F. G. F.” writes: “In your footnote in THE GARDEN of the 18th ult., page 102, you state that Mr. Miles would like to meet with Lapstone Kidney, of which I have a few. If he will exchange with me for some other sort I should be pleased to do so.” We hope Mr. Miles will see this note and write us. We have kept “F. G. F.’s” address.

Campanula hybrida Fergusoni.—“A very beautiful hybrid Campanula, its parentage somewhat obscure, said to be crossed with *C. pyramidalis* . . .” is the opening description of this new plant as given in a recently published catalogue, but, considering that it has been shown and fully described in most of the leading journals and also figured and described in THE GARDEN, October 22, 1904, there is no obscurity as to its origin. The exact parentage is *C. pyramidalis* alba and *C. carpatica*, and I learn from the raiser that he had the special view in mind when making the cross of producing a bushy perennial form of *C. pyramidalis*. When grown under glass the flowers are a soft light blue; in the open ground they assume a deeper tint. Being perfectly hardy and a perennial, it is also invaluable for outdoor culture.—CAMPANA.

The White Algerian Iris (I. stylosa alba).—I find the white winter Iris very useful when grown in pots and wintered in a cool greenhouse. With me it begins blooming at the end of January, and continues to throw up its delicate blossoms until April. I find, however, that in order to get an abundance of bloom generous treatment is necessary. Plenty of good food in some shape or other must be given all through the growing time, especially in late summer and early autumn. Last season my pot plants did not bloom at all well; they had got into a pot-bound condition, so that there was little or no nourishment left in the soil. It did not occur to me to feed them regularly, so that, although they looked healthy enough at the close of the autumn, they evidently had not sufficient substance to form buds. Profiting by experience, I fed them rather heavily last summer and up to October, the difference being very marked, plants in 7-inch pots producing an abundance of flowers.—J. CORNHILL.

Hollies in the Bristol Zoological Gardens.—In these gardens there is a remarkable collection of Hollies. No fewer than 100 varieties are growing. The variety Silver Queen is represented by columnar-trained specimens 15 feet high, and as much as 8 feet through at the base. Many of them are from fifty to sixty years old, showing the great care they have received at the hands of Mr. Harris the curator, who prunes them in February and replants in April or September, which he considers the best months for this work. Other varieties noted are Milk-maid and its weeping form Maderiensis, Myrtifolia, Hodginsi, Ferox, Golden Queen, Calamitosa, Scotch Golden, Camelliaefolia, Waterer's Golden, and one that is here known as Paul's Maderiensis.—E. M.

Three good Verbenas.—Strong, vigorous plants, producing fine blooms of varied and beautiful colours, result from sowing seeds of good strains; still, some of the named varieties are essential in many places, and must be propagated by cuttings to obtain them true to colour. Prominent among these is Ellen Willmott. I find it more difficult to winter than most; it resents strong heat and is more prone to rust, but if kept in a lower temperature it does better, and the spring cuttings grow away freely. Another useful kind is Scarlet Defiance, possessing a good constitution and a telling colour. Both the above are better known than the fragrant Sea Foam. This is an American introduction, I think (at least, we had it from Child's years ago). The flowers are borne in abundance, much smaller than the above, white, and with a decided Cowslip perfume, especially in the early morning. It is a free grower, and splendid for cutting.—J. R., *The Gardens, Tan-y-bwlch*.

Some plants in flower.—Crocus Alexandri, a charming species, still very rare in our gardens, is now flowering here. It has long grassy-like leaves and large delicately coloured flowers, white internally, and externally beautifully marked with carmine and violet on a somewhat lilac ground. The anthers are golden yellow. C. Leichtlini (C. biflorus var. Leichtlini) is a very distinct and rare plant. The leaves are grassy-like. The flowers are internally pure white and yellow centre, while externally there is a slight tinge of pale lilac with conspicuous greenish or glaucous green streaks. C. Korolkowi fusco-tinctus is a handsome and vigorous plant. The flowers are not very large, but numerous, of a deep golden, sometimes bronze-yellow. C. Sieberi is a fine species with bright lilac flowers. C. ancyrensis is a small-flowered species, though extraordinary free in habit, with deep yellow or orange yellow and yellow anthers. C. reticulatus: The leaves at the time of flowering are only half the proper length, and are then erect. The flower is of a distinct deep lilac, externally feathered, and streaked with rich purple. It is surprising what is often sold for C. reticulatus. As this is one of my favourite Crocuses, I ordered

it from several Dutch catalogues in which it was offered, and I am sorry to say only from one source I received the true species. C. dalmaticus is a fine large-flowering species with a yellowish throat, the segments rich lilac, sometimes rosy lilac, but tinged with buff or purple on the outside. C. Imperati is evidently a variable species. I can pick out at least two quite distinct forms, undistinguishable except when in flower. The inner segments are bright purple, and the outer ones are in the one form feathered rich purple, while in the other form the external markings are entirely absent. Another form, closely allied to C. suaveolens, is much earlier.—G. REUTHE, *Keston (February 18)*.

Lectures on soils and manures. The governing body of the Aberdeen and North of Scotland College of Agriculture have arranged for a course of lectures on the chemistry of soils and manures for the benefit of market and other gardeners, professional and amateur. The first lecture, of the course of six, was delivered in Aberdeen on the 21st inst., the addresses being given weekly thereafter. The course of lectures is being given by Mr. James Hendrick, B.Sc., whose addresses on similar subjects have been generally appreciated. It is intended that they shall embrace such subjects as the growth of plants, what they derive from the air and soil, together with the nature and the composition of the soil itself, and other cognate questions. The directors of the Royal Horticultural Society of Aberdeen, with a commendable spirit, have appointed their secretary (Mr. J. B. Rennet) and a committee to assist in bringing the lectures before horticulturists. To make the addresses more valuable questions will be invited at the close of each.

THE WANDERER'S EVEN SONG.

Sweet peace is lying
On the hill.
No night wind sighing—
All is still.
The birds are sleeping
In the trees,
Not a breath creeping—
Not a breeze.
O wait, and thou, too, shalt rest
Even as these.

S. H.

—(From the German of GOETHE.)

Fuchsia Rose of Castille.—In the Zoological Gardens, Bristol, Fuchsias are much admired, and cultivated so well that a special two days exhibition is held. Fully 200 specimen plants are grown as pyramids and standards. In the collection there are two plants of the variety Rose of Castille which are fifty-four years old, perfect pyramids, and now fully 9 feet high. Mr. Harris, their custodian, regards them with pardonable pride, having had them in keeping so long. For freedom of flower it is difficult to suggest a better variety.—E. M.

American Oaks in England.—One of our nurserymen recently received an order for a collection of Oaks for England, coupled with the request that Southern sorts were not to be included, it being feared they would not live outdoors there. The fact is that probably every one of the strictly Southern Oaks would live there, for all but two or three of them get through the winter at Philadelphia. There came to mind only these that are not hardy in that city: Virens, laurifolia, Catesbaei, and cinerea. Others, which if not strictly Southern or more so than they are Northern, and which do well throughout the Middle States, are: Lyrata, aquatica, Phellos, and falcata. The Phellos and falcata approach North to Philadelphia, both growing within the city limits, and both ending there so far as I know. Two or three falcata exist in a wild state within the boundary of Fairmount Park. Coming back to the request for such Oaks only as would grow in England, there would be little risk in sending every kind

indigenous to our country. The greater number of species of Oaks we have grow both North and South. The white, pin, scarlet, red, black, mossy cup, chestnut, post black jack, and others are, some of them, to be found almost from the limit of both North and South, while others are in the border States. There is one thing connected with this subject which must not be forgotten, namely, that although a certain tree may grow from far North to far South, the seedlings from the Southern trees will not be hardy in the North. It is meant, of course, those from far South. There seems no question that a tree in time fits itself to its surroundings. Hardly in a perceptible way, perhaps, in one's lifetime, but everything points the way to believing that it does occur. Oaks, Hickories, and other trees which are found in our Northern woods grow, many of them, in Southern woods as well, but it is of no use sowing seeds of the latter in the North; the seedlings will not prove hardy, having in mind those from far South.—*Florists' Exchange (New York)*.

Prunus davidiana.—This, the first of all the Almonds, opened its first flower early in the third week of January, and is now in full bloom, the pure white blossoms on a standard tree showing up well against the dark foliage of an old Cupressus at a little distance. All who care for winter flowers in the open—and who does not?—should grow this Prunus, still catalogued by many nurserymen as Amygdalus davidiana. It is a worthy companion to Lonicera fragrantissima, L. Standishi, Hamamelis arborea, Chimonanthus fragrans, and Clematis balearica, all of which produce their blossoms in the depth of winter. There is also a pink-flowered variety of this Prunus, styled rubra, which, as a rule, is not such a free bloomer as the white type, but where it can be induced to acquire a floriferous habit it forms a pleasing contrast to the subject of this note. A sheltered spot should be selected for planting, as biting winds sadly mar the blossoms. Prunus davidiana, which was introduced from China by the Abbé David in 1872, is perfectly hardy, growing freely in the neighbourhood of Pekin.—S. W. F.

Iris histrioides major.—From all appearances this will be as valuable an early spring-flowering plant as I. reticulata. With me every bulb flowers, whether starved or neglected. It has a handsome bulb, with a fine netted tunic, long leaves, which develop after flowering, and large, showy flowers of a rich blue colour, with faint white veins and yellow ridge of the blade of falls. It is also sweet-scented. The typical I. histrioides is much earlier, smaller in flower, and less showy, and cannot be depended upon to flower after the second year after importation.—G. REUTHE.

The best Apples.—The complaint that old varieties of Apples quite distanced by newer and better ones are often recommended for cultivation is due to the fact that persons generally write about what they grow, and not about newer varieties they do not grow. It is for that reason we see in an Apple election varieties coming out high in the list that are not really the best now. I venture to suggest, at the risk of getting into a hornet's nest, that for amateurs six first-class dessert varieties to cover a long season are Beauty of Bath, James Grieve, Allington Pippin, Cox's Orange Pippin, Lord Hindlip, and Sturmer Pippin, and to make up a round dozen I would add Lady Sudeley, King of the Pippins, Ribston Pippin, Braddick's Nonpareil, Adam's Pearmain, and Cockle Pippin. It will be seen that, while the first half-dozen comprise some newer varieties, the second lot are chiefly old ones. When the best six or twelve desserts are settled upon, then the kitchen varieties may be similarly dealt with. I do not assume that the lists I have given will be generally accepted. If it can be shown that they are imperfect, and that better varieties, old or new, are left out, let us hear of them by all means. So large is the number of generally accepted dessert varieties of

Apples that there is a range of fully 200 to select from. Out of these the Royal Horticultural Society in its fruit show schedule publishes a list of 100. But so many varieties are bewildering to the amateur who wishes to have the very best, and especially varieties that do well as bush or espalier trees on the Quince stock, as alone suited for small gardens. What varieties suit him best will suit the gardener best also as a rule. I would not like to see anyone running on high-coloured varieties because of colour, but selecting them because average good croppers, have handsome fruits of medium size, of good flavour, and which have naturally kept well a long season.—A. DEAN.

Flavour in Potatoes.—It may interest both Mr. E. Miles and other readers to learn that when the Royal Horticultural Society's vegetable show is held in November next a class will be found for yellow flesh Potatoes. This class has been inserted expressly to encourage the production of yellowish flesh varieties, because it is these alone apparently which give that flavour so many desire to obtain. If any can get stocks

cutting of a cutting of the real tree. I struck eight or nine plants. It is of a very weeping character, almost creeping, and has red stems and very fine leaves. These plants, I know for a fact, are "great-grandchildren" of the original tree.—F.

How to force cut branches of hardy-flowering trees into early bloom.—I have often found this a useful as well as an expeditious way of providing a supply of cut flowers in spring when one happened to be short or when extra flowers were wanted. Cut branches of the following may be forced in this way: Lilacs in variety, *Spiræa prunifolia*, and others, nearly all the *Prunuses*, the Mock Orange, the Crabs, Azaleas, and many other deciduous trees. The way to proceed is to cut good-sized branches and insert in vases containing warm water (70° to 75°), placing the same in strong heat in a propagating house or stove. It is no use trying to force them whilst the trees are dormant in winter, only when growth has fairly started in spring. Then it is possible to produce flowers in this way with fair

WATER GARDENING.

SMALL PONDS AND POOLS.

IT is probably in the smaller ponds and pools, or in river banks and back-waters, that most pleasure in true water gardening may be had. Everyone who has known the Thames from the intimate point of view of the leisured Nature-lover in boat or canoe, must have been struck by the eminent beauty of the native water-side plants; indeed, our water gardens would be much impoverished if we were debarred from using some of these. Many of them are among the most pictorial of plants. There is nothing of the same kind of form or carriage among exotics that can take the place of the Great Water Dock (*Rumex Hydro-lapathum*), with its 6 feet of height, and its large long leaves that assume a gorgeous autumn colouring. Then for importance as well as refinement nothing can be better than the Great Water Plantain, with leaves not unlike those of the Funkia, but rather longer in shape. Then there is the Great Reed (*Phragmites*) and the Reedmace that we call Bulrush (*Typha*), and the true Bulrush (*Scirpus*) that gives the rushes for rush-bottomed chairs—all handsome things in the water close to the bank.

Flowering Rush (*Butomus*) makes one think that here is some tropical beauty escaped from a hot-house, so striking is its umbel of rosy bloom carried on the tall, round, dark green stem. It has the appearance of a plant more fitted to accompany the Papyrus and blue Water Lily of ancient Egypt than to be found at home in an English river. This charming plant would look well near *Equisetum Telmateia*, which would grow close down to the water's edge.

The yellow Iris of our river banks is also an indispensable plant for the water garden, and will do equally well just in the water or just out of it. Not unlike its foliage is that of the Sweet Sedge (*Acorus Calamus*), fairly frequent by the river bank. I have driven my boat's nose into a clump of it when about to land on the river bank, becoming aware of its presence by the sweet scent of the bruised leaves.

The branched Bur-reed (*Sparganium ramosum*) has somewhat the same use as the Sweet Sedge in the water garden, making handsome growths of pale green luscious-looking foliage, and spikes of bloom that are conspicuous for the class of plant; it is related to the Chair Rush (*Scirpus*). It grows in very shallow water and in watery mud. The Cyperus Sedge (*Carex pseudo-*

Cyperus) is also handsome for much the same use.

Of the floating river flowers the earliest to bloom is the large Water Buttercup (*Ranunculus floribundus*); its large quantity of white bloom is very striking. Where this capital plant has been established there might be a good planting of Marsh Marigold near it on the actual pond edge. The two look very well together, and all the better with a good stretch of the dark Chair Rush behind them. One point of botanical interest in the Water Buttercup is its two distinct sets of leaves, those under water divided into many hair-like segments, while those that float are flatter and wider. It has been noticed that when the plant grows in swiftly running water, which would tend to submerge the upper leaves, they disappear, and the finely divided ones only remain.



A NATURAL WATER GARDEN.

The larger form of the Water Buttercup (*Ranunculus aquatilis*) in the foreground, and the true Bulrush (*Scirpus lacustris*) beyond.

of the Old Victoria, Lapstone, Red Regent, and a few others, they will find in them the colour in flesh it is desired to obtain. To go back to very old, poor cropping, and disease-absorbing varieties for use as parents is, it is to be feared, wasted labour. Woodstock Kidney, if stock of it can be obtained, was one of the best yellowish flesh Potatoes of twenty years ago, and has been one of the most prolific of pollen parents. That variety used on Up-to-Date, for instance, should have some good influence, but the fact remains that most, if not all, of our best croppers and disease resisters have the whitest flesh. After all, soil is a great factor in flavour production.—A. D.

Napoleon's Willow.—In reply to "Enquirer," in *THE GARDEN* of the 18th ult., referring to Napoleon's Willow, I shall be very pleased to give him a young plant raised from a

success, but the practice is not recommended, excepting in cases of urgency, as the flowers have not the same lasting quality as those grown on rooted plants, and the practice if carried out too often by the inexperienced might lead to the disfigurement of valuable and beautiful trees. On the other hand, occasional judicious and intelligent cutting might do good, and certainly could not do much harm.—O. T.

Chinese Cabbage.—In regard to your remarks on the above subject in your issue of the 11th ult. I would like to point out that this plant is *Brassica campestris*, L. A good description of the plant and its mode of cultivation may be found in the "Kew Bulletin" for 1888, pages 137 and 138, under the name of Shantung Cabbage. It is largely cultivated in Hong Kong and South China, and is an excellent vegetable.—W. J. TUTCHER.

The charming *Villarsia nymphaeoides*, with fringed yellow bloom, though not a common plant, may be found here and there on the Thames, sometimes in large quantities. It grows in water 3 feet to 4 feet deep or even more, its small, thick, rounded leaves looking like those of a tiny Water Lily. Each neat little plant is anchored by a strong round flexible stem to the root in the mud. It is well worthy of a place in the water garden. I used to get the plants up by dragging the bottom with a long-handled rake, and transferred them to the pond of more than one friend. If a place is chosen a little shallower than their original home and a stone tied to each root, they will soon establish themselves and make a good patch the next year. It likes still but not stagnant water.

The Arrow-head (*Sagittaria*) is another handsome native thing that likes a place near the pond or river edge. There are other and still better species, one American and one Chinese, and a good double-flowered variety.

Frog-bit is another pretty floating plant, with heart-shaped leaves and habit of growth not unlike *Villarsia*.

The Water Soldier (*Stratiotes*) is a curious thing and handsome in its way. The whole plant is not unlike the bunch of spiny-edged foliage in the top of a Pine-apple, but of a dark bottle-green colour, and a foot long. It grows at the bottom, rising only to flower and then sinks again. It is more a curiosity than a militant water garden ornament, but it certainly gives interest to a watery region to know that this strange thing is there and that with luck one may be on the spot to see it flower.

The Butter-bur (*Petasites*), with its large leaves a foot or more across, makes a great effect as a foliage plant on the pond edge, or where a space of very shallow slope comes down to the water.

The Buckbean (*Menyanthes*) is one of the prettiest of English flowers. Its home is the muddy edge of river or pond or very wet bog; it does not need running water. The leaves are rather like three leaves of Broad Bean, joined into a large trefoil; they stand up out of the water. The flowers, which also stand well up, are a spike of pretty pink bloom; the whole blossom is delicately veined by a fringing of white hairs. It is a plant of the Gentian tribe, as is also the *Villarsia*.

The Summer Snowflake (*Leucojum aestivum*) is beautiful beside the pond or pool; in strong alluvial soil growing to a surprising size. It is one of the best of plants for growing in quantity in tufts like Daffodils; indeed, in meadow land by stream or pond the two plants would meet and amalgamate happily, the damper places of the Daffodils agreeing with the drier of the Snowflake. Here again the addition of groups of Marsh Marigold would come very well.

(To be continued.)

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

TREE CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In reply to Mr. E. H. Jenkins's letter in THE GARDEN of the 4th ult., page 77, I may first say that it is more than forty years ago since I was associated with the Tree Carnations, and the varieties that first came under my notice were almost all of a tall habit of growth, with flowers more or less fringed. The collection included the variety *La Belle*, referred to by Mr. Jenkins. It was a free-flowering sort, but the growth, though tall, was too slender. *Bride* or *The Bride* was better. I cannot be certain of the name of the best red, but we had several, among them *Rosabelle* or *La Belle Rose*, and later on came *Sir Charles Wilson*, a true type of

with one of the prominent exhibitors on the tall-growing section, with large, full, bright rosy red flowers, fringed petals, and sweet scented; then we had *Laura*, of the same type, with flesh-pink flowers. *Andalusia*, which came from the Continent about twenty-six years ago, was a great favourite, gaining a first-class certificate from the Royal Horticultural Society about the year 1880 or 1881. When I first grew these they were of remarkable vigour. Mr. Jenkins refers to Miss Joliffe; this, I believe, was one of the first of the dwarf type. As far as I remember it was in 1871 that this gained a first-class certificate from the Royal Horticultural Society. *Lucifer*, *Irma*, and *Mlle. Carle*, also other dwarf whites, were among the earlier dwarf sorts. These dwarfier sorts took the place of the tall-growing or original tree varieties, but have not proved sufficiently vigorous for pot culture. Miss Joliffe lasted longer than most of them. I believe that Carnations continually grown under pot culture will gradually weaken, and in support of this I may mention that the best stocks of the *Malmaison* varieties, as far as my experience goes, are from those layered in the open ground and taken up early in the autumn. Mr. Jenkins refers to those grown in the open ground by Messrs. Hooper and Co. I saw a good deal of those, and it was not surprising that the flowers should fail to open, and certainly for stock purposes the treatment was not calculated to produce the best results. Mr. Jenkins refers to the American varieties not being seen at their best in this country. This may be true; yet it is remarkable how far they excel all our own varieties, and the planting out as adopted by Mr. Dutton with such excellent results must prove that it is possible to improve on our old English practices. I have been interested in Tree Carnations from my earliest start in garden work, and have been fairly successful as a raiser of seedlings, propagator, and grower, and my experience is that no varieties will last an unlimited time under pot culture, and the only way to keep up a vigorous stock is to plant out either in the open ground or under glass. And we need new seedling varieties to take the place of those which fail to sustain a vigorous constitution. In raising seedlings, or, rather, hybridising for seed, I do not suggest that the fringed petal should be a necessity, but those that come from that type and are of the tall, vigorous habit should be selected, and they should not be intercrossed with the dwarf, smooth-petalled sorts. I am fully convinced that the American varieties partake strongly of the habits of those I first knew as English Tree Carnations.

A. HEMSLEY.

LESSONS FROM CHRYSANTHEMUM SHOWS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—At the outset I would say I am not an exhibitor, and have no interest in exhibitors beyond judging their produce, but I do like to see a case put clearly and without prejudice. It is not right to say the plants are sacrificed for one bloom. The best of them produce three, and some four, upon each plant, or how would some of the prominent exhibitors manage to stage so largely at the shows from a limited number of plants? "A Reader" must remember that few visitors would be content to look upon market or other freely-grown plants, and be so well satisfied as to repeat their visits. No; the British public require something more than they can see in any market or florist's window. The finest exhibits of freely-flowered and well-arranged plants, all with small-flowered varieties, was at Ascot last November, yet not one visitor in ten stopped to look at either of the groups. What would become of the many Chrysanthemum shows if "A Reader's" views were carried out, not to mention the nurserymen, who go to enormous expense to bring out the finest of new varieties to take the place of those worn out and super-

seded? Only a few weeks ago I was in conversation subject of showing. I said, "Are you not tired of it?" He said, "Yes, I am, but my employer is so fond of it that he will not hear of me giving it up." This is but one instance of how some employers regard the exhibiting question. If no plants were grown on the big bloom system of culture, how should we obtain some of our finest decorative varieties? Does "A Reader" think the ordinary market grower's method of culture can develop the form, colour, size of floret, and general character of the flowers in the same way that the present system of cultivation does? Were it not for the practice now in existence we should never have known the value of many varieties that are now grown purely for the production of quantity, early and late flowers also. What could be more effective than a vase or basket containing half a dozen or a dozen blooms on a side or centre table, or on the ground in a front hall or drawing-room corner? No; the large, well-developed blossoms, when not coarse and of effective colouring, are still popular and desirable, and will continue so. What gardeners should do—and they do it now more than formerly—is to cultivate varieties for quantity of flower, early, late, and midseason, so that their employers may have a share of those sorts which are admittedly of great value. If this were generally done we should hear less of the desire to dispense with the large blooms.

E. MOLYNEUX.

ENGLISH NAMES FOR PLANTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Having read your article on "English Names for Plants" with much interest, may I be permitted to offer a few remarks on the subject? I think if everyone were to learn the Latin names of both garden and wild flowers, and call them by those names, it would be much simpler, as so many well-known flowers have two or three different English names. To take two examples of wild flowers: *Cardamine pratensis* is known as Lady's Smock, Milkmaids, and Cuckoo Flower; and I have heard it called Cuckoo Pint, which name is usually connected with Lords and Ladies, otherwise *Arum maculatum*. If this plant was known as the wild *Arum* it would save a great deal of confusion; and, putting aside the question of utility, the botanical names might be used sometimes on grounds of suitability; for instance, take the pretty little flower commonly known as *Stitchwort*, which beautifies our hedgerows with its myriads of fragile star-like white blossoms in early spring, what name could be more suitable or descriptive than the Latin one of *Stellaria*? Amongst garden flowers there is the *Syringa*, by which is meant the *Philadelphus*, a name which applies to nothing else; or another name, the English one, is the Mock Orange, either of the two latter names will do, but why call it *Syringa*, when this is the botanical name of the Lilac? I think these few instances illustrate fairly clearly my meaning, when I say that Latin names, even if sometimes rather long and hard to pronounce, are simpler than a multiplicity of English ones.

Cross Lanes, Guildford.

A. SMALLPEICE.

IPOMŒA RUBRO-CÆRULEA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I notice on page 89 of THE GARDEN of the 11th ult. Mr. S. W. Fitzherbert gives a few details of the culture of this climber. His details begin when the plants are 2 feet high. My experience with this most beautiful plant is that when it gets to that height there is no more difficulty with it. I find the trouble is in the raising of the plant to that height or less. Anyone who is about to grow this plant should sow the seeds about the end of the present month in strong heat. Get the plants well established before hardening them off, as I find this important. Of course, with me here the plant will not thrive out of doors, but grown in the greenhouse

it makes a splendid show, and at once attracts attention when in flower. Another great point I find with this plant is that many seedsmen catalogue this variety as blue and red, but without a doubt the true *Ipomœa rubro-cœrulea* is the light blue.

Rûg Gardens, Corwen.

J. S. HIGGINS.

GARDENERS' ROYAL ORPHAN FUND.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was glad to notice, in looking down the report of the annual general meeting, that the question of the nomination of two children from the same family was mentioned, and will soon be discussed by the committee. It is to be hoped they will be able to make an alteration as soon as possible. There are now twenty-one cases, in all forty-two children, in which the dual benefit is derived. In some cases this will not cease for another eight years, consequently my suggestion as to the form any new rule might take (on page 82) is hardly practicable, as no one would wish to take away the benefit from children already in receipt of it, even if it were possible to do so. I would suggest to the committee the adoption of a new rule somewhat on these lines: "That on and after the annual meeting in February, 1906, no two children in the one family shall be nominated at the same time, also on and from that date, during the time a child is deriving benefit from the fund, no application shall be entertained from the same family." Apart from any alteration that may be necessary in the wording, such is the purport of my suggestion. I was glad to receive corroboration from Mr. Dean as to the feeling of many gardeners. In his capacity as horticultural instructor and judge, he comes in contact with a far greater number of subscribers than the average gardener, and should be able to speak as one who knows.

Claremont.

E. BURRELL.

WATERING PLANTS IN WINTER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—“R. D.” writes under this head on page 74 of *THE GARDEN*, and remarks “that when water is given to plants it should always be of the same temperature as that of the house in which the plants are growing,” and, further, “it is always best for the water to be warmed 3° or 4° above the temperature of the house.” So far as my own experience goes, this is a theory that ought to have been exploded long ago, and there is no more reason why the water given to plants in winter, or at any other time, should be so many degrees higher than the house temperature in which the plants are grown than there is reason for all the drinks we partake of as individuals being of a greater degree of heat than that of our body. Doubtless, if the question were put to one hundred gardeners, 90 per cent. would favour an equable temperature, *i.e.*, for house and water for the plants. It is just as likely that 89 per cent. of these could only speak of their preference in such a case, and would be quite unable to produce proof if occasion required. I have three small greenhouses here, however, in which there is no water tank at all, the supply having to be carried in as required. A bad arrangement many will say, but it has negatived for years past the theory advanced by “R. D.” For something like twenty years these houses have contained as a winter crop Roses (General Jacqueminot), and some of the finest early red Roses sent into Covent Garden in February have been grown in them. As a matter of fact, I get better flowers from these houses than I usually do from other houses in which there are water tanks. This superiority I attribute in a large degree not to water or watering, but to the greater time between breaking into growth and flowering, the winter growth and development being exceedingly slow. The later batches have

larger and fuller flowers, but in colour and form the earliest are the best. For these three houses the water from an open tank is used at all times, except when covered with ice. Some of the largest market nurseries have huge cement tanks between the houses to catch the rain water, a small dip hole here and there inside them sufficing. Bulbs for forcing, *Eucharis*, *Asparagus*, *Fern*, *Roses*, and other crops are grown in the houses thus supplied. Probably one of the most deceptive things is the temperature of the water, even when in a well-heated greenhouse. With the latter at 65° the water may be found to be quite 8° or 10° below this. Not only is this the case in winter, and in the greenhouse much the same proportion is to be found any day in summer, and as the atmosphere is the warmer in the greenhouse, so it is in the open in summer time, and the water in each case will be found a few degrees colder. In the result the amateur has nothing to fear from any disparity in the temperature of the water employed for his



WILD CHICORY IN THE GARDEN.

plants. He has far greater cause for anxiety as to the amount he will give his plants or whether they require any or not.

Hampton Hill.

E. H. JENKINS.

VITALITY OF SEEDS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your correspondent who writes under the unassuming name of “Ignoramus” is welcome to anything I can tell him, and on the subject of the vitality of seeds there are mingled lights and shadows, as of frauds discovered and of mysteries unsolved. “Vulgar errors” die hard; there seems no “weed killer” of science that can quite keep them down. They could be made to destroy themselves but for the sorry fact that fiction seems to go further than truth. The “mummy Wheat” fiction should be pretty well exploded by this time. I have even blown it up myself by growing the plant *Triticum compositum*, and finding the vitality of its grain no greater than that of any other Wheat. I once spent a series of years to test the longevity of all our more common cereals. The grain of Rye, an angular thin corn (well described in the old song, “The Rye is like the miser, that’s withered, lean, and old”), perished first, then Barley, then Oats, and lastly Wheat. After the second year’s keeping germination was distinctly slower in them all,

then weaker still, until it completely failed far within the limit of the ten years which, if my life should last, I hoped to give for the experiments.

I was much disappointed to find my most favourite cereal, Indian Corn (*Zea Mays*), for all its bulk and fatness, as perishable as any. However, I was not utterly unprepared, because I know that in America it is a Maize maxim to “always sow Corn that is full of germ,” which I take to mean seed that is youthful and fresh. “The wisdom of the Egyptians” was far too great to permit such breadstuffs as their composite-headed Wheat to be lost to cultivation. It was, indeed, a fit emblem of plenty, for the supposed needs of the ancient Egyptian dead, and a safe crop in a land where rain in harvest is unknown, but equally unsafe in a mixed climate like our own. The straw of this Wheat is so strong that the topmost joint is solid throughout its length, but the heavy compound ears, and their woolly, bearded chaff, would retain rain water long enough for the grain to swell and then sprout.

It is only the human mummy that gains in estimation by the lapse of years. Even as Laurence Sterne, preaching in York Minster on the subject of “The Prodigal Son,” said, the wild young spendthrift had been victimised by the Egyptians into purchasing new things for old, and that “even his mummies had not been dead long enough”!

“Mummy Peas” are in the same “Black List” of frauds, much as the sham antiquities that I suppose are still paying investments in the Ancient East, where I remember being beset in the Land of Egypt by two pestilent vendors of time-worn curiosities, who vanished when one of them denounced his rival as being a villain who had got his stock from Birmingham.

I understand that the wily Oriental has been further giving himself away by offering seeds of Indian Corn as having been discovered in the possession of an Egyptian mummy; and I think this would imply an immense anachronism, for Maize comes to us from the West, and, by legendary lore, it was “Hiawatha,” the God-like hero of the American Wild Indian tribes, who first brought to his people the gift of “Mondamin, The Spirit’s Berry.” Both the habit and the cultivation of this great cereal are beautifully outlined in Longfellow’s poem “Hiawatha.”

In mysteries unsolved concerning “Vitality in Seeds,” I think it more considerate to wait for space in some future issue of *THE GARDEN*, *i.e.*, if such would be of sufficient interest.

FRANCIS D. HORNER, M.A., V.M.H.

CHICORY AS A GARDEN FLOWER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Although the gardener’s eye is generally on the look-out for any beautiful effect produced either by the skill of man in combining and grouping plants and trees in the garden or by the hand of Nature in the fields and woods; it is not, perhaps, whilst following a pack of otterhounds running a hot drag amidst all the excitement of the chase that even the most susceptible in this respect would allow his thoughts time to be diverted from the sport that at such a time is apt to absorb all our attention; but it was under such circumstances and whilst enjoying one of the most exciting runs it has been my good fortune to take part in that I suddenly found myself gazing, wrapt in admiration, at a most beautiful picture produced by a large drift of tall herbaceous plants growing to a height of about 4 feet to 5 feet, bearing quantities of clear blue, Daisy-like flowers, reflecting in every petal the clear azure tint of a cloudless summer sky.

For a few seconds I stopped in the headlong race to examine more carefully the plants which produced such a beautiful effect, and as I had not seen them before I hastily picked a few, fixed them to the inside of my cap, and hurried



SMALL WATERFALL IN THE ROCK GARDEN OF MR. C. BEWES AT GNATON HALL.

on to make up the ground I had lost and join again in the hunt, which soon took us far away from the spot, following the many windings of the stream.

I took the blooms, much withered, out of the lining of my cap, where they had undergone somewhat rough treatment, and placed them carefully in water. By the next morning they were sufficiently revived to be identified, and turned out to be nothing more nor less than the common Chicory. I wonder who would think of looking for Chicory plants by the side of a Welsh stream, and how many of your readers, when they drink their Coffee, so often containing a large percentage of the fragrant Chicory root, ever dream of asking what sort of flowers that plant produces. Yet it is well worth growing, either in the herbaceous border or in any rough place, where the plants will get plenty of sun, simply for the sake of those lovely azure blue flowers which it produces so freely.

I at once sent for a packet of seed, and in a short time was able to plant out groups of seedlings in the back of a border facing south, and the result the second year after planting, when the roots had become thoroughly established, was in every way satisfactory. They grew most freely, and flowered throughout the greater part of the summer whenever the sun shone upon them, proving one of the most interesting groups in the garden.

The photograph I am sending you, unfortunately, does not give at all an adequate idea of their value, as I had to take it from behind the plants, but it will serve to show how well they are adapted for planting in open spaces in shrubberies or rough banks, old quarries, or even to cover unsightly rubbish heaps, where the seed may be sown broadcast and the plants, when once established, can take care of themselves. They are not at all particular in the matter of soil, but they must have plenty of sun to open their flowers, which they do, like the common Daisy, as soon as the sun shines on them in the morning, closing them again in the evening and when the sky becomes overcast.

Many of your readers will no doubt have plants of Chicory in their gardens grown for the purpose of providing an ingredient for winter salads. Let me advise them to plant a few of these roots

as suggested above, and I am sure they will not be displeased with the result. W. A. WATTS.

THE ROCK GARDEN.

ROCK GARDEN-MAKING.

XXI. — RUNNING WATER IN THE ROCK GARDEN.

THAT ponds and Lily pools, either natural or constructed so as to resemble Nature, greatly enhance the delights and the possibilities of a rock garden, has already been mentioned in previous essays, the last of which appeared in *THE GARDEN* of December 31, 1904. I will now deal with another form of water in the rock garden, namely,

RUNNING WATER.

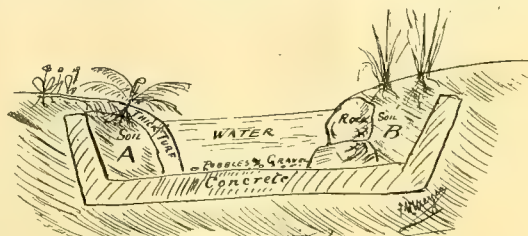
Pools and ponds by means of their reflecting surface give light to the rock garden, but running water gives actual life to the scene as it dashes over rocks and boulders. Running water at all times is one of the most delightful adjuncts to a rock garden, and one of the most useful as well, since it can be turned to good account in quite a variety of ways. Of these the most important are streamlets and waterfalls.

Natural Streamlets.—We are lucky indeed if a natural stream or brook traverses the ground close to the site of our rocks, and if the supply of water is constant. It is a very easy matter, as a rule, to divert the course of such a streamlet either wholly or partially, and to lead it through the rock garden. On the water-soaked banks of such a stream we are able to grow an endless variety of plants which love the water-side. Such a streamlet, too, can be made most picturesque at little expense, for, if the water supply is fairly abundant, a little waste is of no consequence,

and very often it is possible to save the cost of securing the sides and bottom of such a stream by concrete or other watertight materials. Especially is this the case if the subsoil consists of clay.

I always find it a good plan to arrange the levels of flowing water in such a way that a rapid current can occur only where stones or rock form the sides and bottom, and would prevent too much wash. Where the ground is soft a rapid flow of water would soon wash away the sides and tear up the bottom; it is best, therefore, to keep the streamlet fairly level on such unprotected ground, letting the water bay back, say, to a depth of 6 inches to 8 inches, and then fall over a succession of irregular miniature dams arranged with stones to resemble natural rock. Sharp bends in the watercourse should also be made by rocks, not only for the sake of greater security, but because in Nature we almost invariably find that when flowing water makes a sudden bend it is owing to coming in contact with rocks which divert its course, and cause a wash on the opposite shoreline or bank, which would naturally assume a more or less hollow curve in consequence.

Artificial Streamlets in the Rock Garden.—The cases in which a natural stream can be utilised for the rock garden are naturally but few. In nine cases out of ten, probably, when water is introduced this has to be done artificially, that is to say, it is drawn from some reservoir or tank, and is conveyed in pipes. It is more difficult in such a case to impart to the watercourse that wild and natural appearance so indispensable for association with rocks, but it is possible, nevertheless, to make an artificial streamlet in such a way that the uninitiated would never for a moment suspect its origin. To do this, not a vestige of the masonry, pipes, &c., must be visible, but all has to be masked with rocks and vegetation. Assuming, then, that the water is collected in some kind of reservoir and is thence conveyed to a place near the site of the rock garden, say, by a 2-inch pipe, or less according to the quantity of water at disposal, the first question to settle would be the exact spot where it would be desirable for the water to make its first appearance, say, at some distance from the rock garden proper. From this spot a winding trench is dug about 1 foot or 2 feet deep, leading in natural curves from the end of the supply pipe to the waterfall, pond, or whatever the outlet is to be. The width should vary, of course, but it should be at least double as much as the width of the desired streamlet is to be when finished. The reason for this is best explained by the accompanying rough sketch, showing



SKETCH OF TRANSVERSE SECTION OF AN ARTIFICIAL STREAMLET, SHOWING HOW THE MASONRY IS MASKED.

a transverse section of a streamlet. The artificial bottom and sides are made perfectly watertight by means of cement concrete. When perfectly dry, the sides are masked

partly with thick pieces of turf set up on their edges and partly by rocks. Both stones and turf (as the sketch will show) are not placed close to the concreted sides, but so as to leave the spaces A and B, which are filled with soil. When the water has reached its proper level in the finished streamlet, these spaces would, of course, be thoroughly soaked with water, and form an excellent home for various water-loving plants. The handsome King Fern (*Osmunda regalis*), *Scirpus*, *Carex*, and many others revel in a position such as this. Japanese Iris, too, do well if planted high enough, so that their crowns are well above the waterline, while their roots can reach the water. The bottom of the stream should be covered with river pebbles and well washed river gravel thrown in irregularly while the cement is wet. If well done, this judicious masking would obliterate every trace of the artificial work, and a streamlet constructed on this principle may be made to look perfectly natural. It should, of course, never be dry, and the smaller the supply of water the more will it be advisable to let the streamlet be a succession of miniature level pools, stepped as it were, at irregular distances, by rocks over which the water descends when the pools are overflowing.

At the beginning of such a streamlet, that is to say, at the end of the water-pipe, it is advisable to dig a pit 1 foot or 2 feet deeper than the bottom of the streamlet proper and to make this perfectly watertight, so as to form a kind of basin, which would collect the water before it spreads out. The best way of hiding the pipe, &c., from view is to place rocks in such a way as to resemble a deep cleft with a dark recess, so arranged as to make it impossible to see the end of it. If stones and plants are properly arranged the water will appear as a natural spring among rocks, and by putting a few bold-looking plants in the background this effect will be much enhanced. I will now briefly consider another kind of running water, namely,

WATERFALLS.

Though it cannot be denied that height is a great factor in the production of a picturesque waterfall, it must be remembered that an absolutely natural appearance is of far greater importance still. I have seen rock gardens in which, by means of pipes, the water was conducted to the highest pinnacle of the rocks, and allowed to fall from that height. Such an arrangement cannot appeal to us, because it is contrary to all rules of Nature,

and betrays at once its artificial character. Wherever we see natural waterfalls we invariably see also, either close by or at a distance, still higher ground from which the water has sprung. It is for this reason that I consider it necessary, whenever possible, to let the flowing water be visible before it forms the desired fall. An example of this kind is given in the accompanying illustration, representing part of a rock garden and waterfall I constructed last summer for Mr. C. Bewes, at Gnaton Hall. The figure in this picture (the head gardener) is standing near the spot where the water makes its first appearance, and forms a streamlet winding in and out among the rocks. This streamlet is invisible from the particular spot from which I took the photograph, but the little waterfall is plainly seen descending over a small cave. As the water supply in this case was very limited the cave furnishes the desirable dark background, which makes it possible for the falling water to be seen distinctly. Had the fall been so arranged as to fall merely over a structure of stones, this limited quantity of water would have been almost lost to view. In front of the cave will be observed a stepping-stone bridge. Among the plants visible in the margin are *Iris Kämpferi*, *Rodgersia podophylla*, *Chelone Lyoni*, and others, while on the higher level are alpenes.

F. W. MEYER.

(To be continued.)

THE ROSE GARDEN.

FRAU KARL DRUSCHKI.

THIS is by far the finest Rose in my garden, in which I cultivate 150 varieties. I am in the habit of describing it to my friends as a German Rose, of French extraction, with a Russian name. It derives its

attributes chiefly from one of its parents,

Merveille de Lyon, which, however, in all respects it greatly transcends. It is purer in colour, more perfect in form, and not nearly so sensitive to atmospheric influences. Its texture is of the softest satiny white. On the other hand, its wonderful facility in opening and long flowering season may be safely attributed to *Caroline Testout*; but it is destitute of the fragrance of that variety. This is an unquestionable limitation in a magnificent Rose of such derivation, which, though included among the so-called Hybrid Perpetuals, might be described as a half Hybrid Tea. During last summer I sent a flower of Frau Karl Druschki to Mme. Melba, the great prima donna, nearly 7 inches across.

DAVID R. WILLIAMSON.

Kirkmaiden Manse, Wigtownshire, N.B.

THE BEST WHITE CLIMBING ROSE.

MANY who have grown Rose Mme. Alfred Carrière willingly concede to it prior place among white climbing Roses. Not only is it a free grower, but from early summer until early autumn it is more or less in bloom, and thus enjoys a great advantage over those varieties whose season of blossoming is short. We have known delightful results obtained by planting this Rose against old and worn out fruit trees; at the end of the second season the Rose shoots had clambered in and out and among the fruit tree branches and had covered them with blossom.

TWO BEAUTIFUL CRIMSON ROSES.

As the Hybrid Teas are now so universally planted there is a tendency to ignore Hybrid Perpetuals. I am not going to disparage the Hybrid Teas. They are far too beautiful and useful for that, but I must say how sadly we feel the want of rich colours and good form and fragrance in this race. Without a doubt Liberty and Etoile de France will meet the want to a certain extent, but they have not the rich fragrance of the Hybrid Perpetuals. There are two very charming sorts, one of them quite old, which should be more grown. I refer to Lord Macaulay and Duke of Albany. The former

although introduced as far back as 1874, is very brilliant in colour, with a rich velvety shading. It is not a vigorous grower, but yet there is nothing delicate about the Rose. Duke of Albany is a gem. Its vivid scarlet-red with black shading needs to be seen in its most intense form to be really appreciated. Suffice it to say that both varieties mingle well together, in habit as well as form, colour, and vigour. The scarlet edges of Duke of Albany is a very taking trait. These Hybrid Perpetual Roses are not comparable in profuse and continuous blooming to the Hybrid Teas, but in the true Rose season they hold their own. P.



CLIMBING ROSE MME. ALFRED CARRIÈRE, ONE OF THE EARLIEST AND LATEST TO BLOOM.



TULIP MADONNETTE

COLOURED PLATE.

PLATE 1269.

MAY-FLOWERING TULIPS.

MAY-FLOWERING or Darwin Tulips are very beautiful, and of this interesting group Marguerite—or Margaret, as it is also called—is one of the most refined and distinct in colour. They happily flower between the latest Daffodils and the Pæonies. Nowhere do we see them in the same perfection as in the garden in beds or large groups. In these positions the bold leafy stems, 2 feet or 2½ feet high, reach their fullest development, and support a globular flower, perfectly moulded, and embracing the widest possible range of colour, in which the selfs are perhaps the more striking generally. Nor is it in the matter of colour alone that these Tulips command attention. There is reason to believe that a large circle of those who admire this flower admire also that perfect contour which, in this section at least, has attained to the highest perfection. Those who have had the pleasure of seeing a field of these May-flowering forms in full beauty have seen a sight that never fades from the memory; yet, notwithstanding their beauty and the comparatively cheap rate at which they may be bought, their cultivation is not so general as the merit of the group justifies. This is singular indeed, if we remember how these things attract when shown in flower. The variety illustrated is a perfectly globular flower of a soft rose-blush internally, a characteristic well depicted in the coloured plate. E. H. J.

CHINESE PRIMULA HIS MAJESTY.

ONE of the most interesting plants shown at the meeting of the Royal Horticultural Society on the 11th ult. was this variety of

Chinese Primula. It was shown by Messrs. Sutton and Sons, and given an award of merit. The flowers are shown natural size in the illustration, and, as will be seen, are of pretty form, whilst there is no trace of colouring; they are pure white. The plant is very free, and in all ways an acquisition.

NOTES ON HARDY PLANTS.

ANCHUSA.

THE article in THE GARDEN of the 14th ult. on a "New Italian Alkanet" interested me very much, as we have a most beautiful plant here which answers to its description and the illus-

these into short lengths and place them thickly in boxes of sandy soil. When growth has taken place they can be reboxed or potted, finally planting them out in the spring. Seeds are produced very sparsely.

Hants.

GEORGE ELLWOOD.

I NOTE Mr. Fitzherbert in his remarks in THE GARDEN of the 14th ult., page 21, on this Anchusa italica, which I have named Superba, has been growing in this neighbourhood for twenty-five years, and which in appearance is identical with that figured in THE GARDEN and accompanying Mr. Fitzherbert's remarks.

The history of my plant is briefly this: Mr. Chequer, gardener to Mrs. Franklyn, Shedfield Lodge, near Botley, who is no mean authority on hardy plants, found this Alkanet in the border.

Seeing it was a good plant he saved it, and eventually gave a piece to the vicar of Shedfield, the Rev. A. B. Alexander, a keen gardener, and at one time a prominent rosarian (who at the present moment, I regret to say, is seriously ill). He increased it as rapidly as possible, giving pieces to all who admired it. In this way it was early distributed, my plant coming from the vicar of Swanmore, the Rev. W. E. Medlicott. In this neighbourhood it is quite hardy, but I find the most vigorous plants fail at times to send up proportionate sucker-like growths the following spring. I have seen scores of seedlings raised from the supposed stock, but not in one instance do they compare with the original in size, form, or colour of the



PRIMULA HIS MAJESTY.

(Natural size. Given an award of merit by the Royal Horticultural Society on the 14th ult., when shown by Messrs. Sutton and Sons, Reading.)

tration in every way very closely. This admirable plant has been in existence in this neighbourhood for over twenty years, so it is not an uncommon sight to see finely-grown specimens in old-fashioned cottage gardens growing apparently uncared for. Some of the trade growers also possess it, as I have observed it in exhibits at southern summer shows.

The variety here is called Superba. It forms plants of immense proportions. Two last year attained a height of 7 feet and a width of 8 feet; truly, as Mr. Fitzherbert says, "the finest of all blue-flowered perennials," if not the king of hardy plants. No plant attracts the eye so quickly or commands greater praise. Propagation has been effected by taking unflowered shoots with a heel attached in autumn from the base of the plant, also from the roots. This is certainly the most prolific, as thick fleshy roots 2 feet long can be severed from the plant. Cut

bloom, or even in foliage or habit of growth. The plant itself does not ripen seed at all freely, huge plants have given seed most sparingly; in fact, none at times. Last year a single plant here grew 7 feet high, 8 feet in diameter, and was furnished with huge spikes of blossom, which lasted quite fresh for many months. Those who saw it marvelled at its brilliancy of colour. As a hardy border plant it is unequalled for effect.

The stock is now in the hands of several of our prominent hardy plant growers and nurserymen, and will soon be more generally known, as it should be. I have now on trial a form with pale blue flowers, which I have named Azurea. This, I think, will be almost as effective as Superba, which is an especially rich blue. The Anchusa is a charming plant for the summer garden.

E. MOLYNEUX.

Swanmore Park, Bishop's Waltham.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

BUSH IVIES.—When they have attained size the Bush or Tree Ives are very effective plants, either as single specimens on the margin of the lawn or on the rockery, or in groups in any conspicuous position. There is a good deal of variety among them; some have variegated foliage of gold and silver, others have yellow berries, and a collection would be full of interest. They may be propagated from cuttings or by grafting on strong plants of the Irish Ivy, but will not come true from seeds. All the plants I have raised from seeds have gone back to the original forms.

Skill in the Use of Tools.—The average run of men are not such good tool men as their fathers were. It is not easy to assign a cause for this. It is becoming difficult to find a man that can use a scythe with that easy swinging motion so common in every garden years ago. The mowing machine has done this. There is very little use for the scythe now, but, unfortunately, there is less skill in the use of the spade and other tools, and gardening is less neatly done than it was. I contend that gardening, even in its lowest forms of labour, requires skill. There are plenty of openings for good tool men now.

The Advantage of Being a Skilled Worker.—I think it was Lord Wolseley who said if he had been a fiddler he would have endeavoured to be a good fiddler, and it is worth anyone's while to make the best of the position in which he is placed. I like to see a young man strive to do his work well and take a pride in it, as that shows he is fitting himself for a better position. And it is true now—as it always was—that everyone finds his level. I was looking at a lot of boys at work in a school garden, and I noticed one boy who handled his spade in that ambidexterous fashion not now common, as if he had had years of experience. As a worker he was splendid, but his order of brain did not fit him for a Senior Wrangler. We are, some of us, apt to look down upon a working man, but the position of the latter requires skill of a high order.

Pruning Clematis Jackmanii.—This still retains its position as one of the hardest for exposed positions or for arches. *C. J. superba* is deeper in colour, and, I think, is an improvement on the type. There is also a white *Jackmanii*, but the flowers are small in comparison with *Henryii*, which is, I think, the best white, though it comes from another and less hardy race. The beauty and usefulness of the *Jackmanii* section is enhanced by free pruning. When they get naked at the bottom cut them down, and they will break up all the stronger. They flower on the young wood, so that hard pruning does not spoil the flowering.

Tree Lupins.—These are beautiful free-flowering perennials, very easy to cultivate on the herbaceous border, and may be raised from seeds. Some years ago I raised a lot of plants from seeds, and obtained both white and yellow from the same packet. *Snow Queen* is an improved white. The plants make neat bushes with a little pruning immediately after flowering.

A Garden of Annuals.—For forming masses on lawn beds that will continue effective all the summer till the frost comes we must rely chiefly upon what are generally classed as tender annuals and require some help from glass. *Verbenas*, *Petunias*, *Phlox Drummondii*, *Chinese Pinks*,

Marigolds, *Zinnias*, *Antirrhinums*, *Ten Week Stocks*, *Asters*, *Salpiglossis*, *Gaillardia lorenziana*, and *Balsams*, either in mixtures or masses of one plant, will make a charming garden, less bright, perhaps, than *Geraniums*, but more pleasing and at less cost.

Raising Tender Annuals.—Sow the seeds now in shallow boxes thinly, and place in frame or house where there is a little heat. When large enough to handle prick off into other boxes about 1 inch apart, or more if space is unlimited, and by the middle of May every plant will be sturdy and hardened ready to go out. With a little pinching, and in some cases pegging down, the beds will soon fill up and be very beautiful all the summer, and supply quantities of flowers for cutting.

Some Good Hardy Annuals.—To be sown now: *Chrysanthemums* in variety, *Clarkia*, rose and white *Convolvulus major* and minor, *Corndflowers*, various *Larkspurs*, dwarf *Rocket*, and branching *Leptosiphon densiflorus albus*. These are beautiful for edgings and small beds: *Eschscholtzia* in variety, very showy, should be well thinned; *Godetia* in variety makes beautiful masses, should be thinned to 6 inches; *Linum grandiflorum rubrum*, *Matthiola bicornis* (Night-scented Stock), very sweet; *Nasturtiums* in variety. *Tom Thumb* section, also bright *Nemophila insignis*, *Nigella damascena* (Love-in-a-Mist), *Shirley Poppies*, *Sweet Sultan*, charming for cutting; miniature *Sunflowers*, and *Virginia Stocks*, good edging plants.

Sowing Flower Seeds in Borders and Beds.—The soil should be mellow and well broken up. Many flower seeds are very small, and if sown over hard ground they will fail. If the spots where hardy annuals are intended to be sown are broken early in the winter and stirred again early in February the ground, when the season comes for sowing, will be in a thoroughly pulverised condition, and it is of no use sowing till the land is in a fit condition to receive the seeds. The best way of sowing is to draw shallow drills with a blunt stick and cover according to size of seeds.

Seedling Apricots.—The Apricot, unlike the Peach, succeeds fairly well on its own roots, and many seedlings produce good fruit. I know a seedling Apricot tree growing against the gable end of a cottage—the stone of which was planted by a daughter of the house when a little girl—that made a very fine tree and bore good fruit for many years; possibly it is doing so now, though I have not seen it lately.

Sow Mignonette Freely.—This need not be a formal matter. Scatter a few seeds wherever there is room. One likes to find the fragrance of *Mignonette* all over the garden, even among the *Roses*. I remember a garden where we could not get the *Mignonette* to grow freely, and it would often die off in patches and look miserable, but by making special sites for it we ultimately succeeded. Heavy loam, with a little bone-meal and soot, appears to suit it.

The Tamarix as a Lawn Plant.—This makes a very pretty feathery group on the lawn jutting out from the shrubbery border, or as forming part of a group of shrubs by the side of a path or near the angle made where walks meet. It should be pruned back more or less annually, otherwise its habit becomes loose and straggling and is not so effective. There are several varieties,

all of which are easily increased by cuttings of the ripened wood after the leaves begin to fall in autumn. E. H.

Worm Casts on Tennis Lawn.—This is often a source of trouble to players, especially in early summer. By the application of a good dressing of fresh slacked lime and silver sand (or gritty river sand will do) the lawn will be freed from this unpleasant nuisance. The dressing should consist of half a barrow-load of lime (applied as soon as possible and in showery weather) to the pole of ground, and the same of sand. Should the weather be dry, the lime had better be watered in, when it will be found that the worms will all come to the surface, mostly dying, but all should be picked off and destroyed. Worms do not like sand either, it clings to them, but beyond this merit which sand possesses it also renders the surface of the lawn firmer and faster for playing. E.

The Value of Wood Ashes.—There are few gardeners who do not know from practical experience what a valuable product wood ashes are for horticultural purposes, and the unfortunate thing is that we are not able to get as much of this material as we should like. It is in the spring, when outside sowing begins, that there is the greatest run on wood ashes, and when preparing beds for Onions, Carrots, Beet, and seedling greens the man may count himself fortunate who has a good supply of the above material for working into the surface soil. Potash is the particular plant food contained in wood ashes and in the form presented it is readily available for the crop to which the material is applied. In passing it may be observed that it is the usual custom in gardens, particularly in the autumn, to reduce such rubbish as sticks, hedge clippings, Potato tops, and so on to ashes by means of fire, and a very good practice it is, particularly if care is taken of the ashes. It frequently happens, however, that these are left on the surface where the fire was throughout the winter, exposed to frequent rains, which wash perhaps half or more of the potash out of the material. This is where the mistake is made, and if we want to get the best out of our wood ashes they should be collected up as soon as the stick fire has smouldered down and be put in an old tub or box and kept dry under cover till they are wanted for use. If this course is adopted, all the potash is preserved in the material, and we get it at its full value. Some crops more than others rejoice in wood ashes, and one of them is the Strawberry. Frequent discussions take place as to the best means of supplying potash to this fruit in the form of artificial manure, but wood ashes applied as a top-dressing between the plants in the winter or early spring fulfil the purpose required, and they are perfectly safe; indeed, if this material were more plentiful there would be no need to seek further for a suitable supply of potash for Strawberries. Wood ashes are so valuable for various purposes that it is wise never to miss an opportunity of obtaining as much of the material as possible. I have often seen trees when being lifted for transplanting with the roots gripping the little particles of wood ashes which were spread among them at the time they were originally planted, and this showed that there was something in the material which they enjoyed. Lastly, a little wood ashes mixed with potting soil for greenhouse and other plants is excellent, not only as a means of giving porosity to the soil, but also for the sake of its fertilising properties. G. H. H.

GARDENING OF THE WEEK.

FLOWER GARDEN.

PROPAGATION.—Increase Dahlias, Phloxes, and such like by sturdy cuttings rather under 3 inches long; these strike freely in moist heat. When rooted, unless the young tops are needed for cuttings, turn into cooler quarters to make room in the propagating pit for successional batches. It is also late to put in cuttings of

EARLY-FLOWERING CHRYSANTHEMUMS for outdoor display during late autumn, and by now most of the old plants left in the borders are producing strong sturdy suckers in abundance. These, if placed on very mild bottom-heat, will root quickly, and potted on will make good plants by the month of May; far better, in many cases, than cuttings taken off pot plants earlier. Divide and pot up Lobelia fulgens and varieties.

LAWNS.—It is now too late in the season thoroughly to renovate old lawns, for top-dressings of manure, soil, &c., will not sink down sufficiently to clear the machines, but the most mossy patches may be gone over with an iron rake to take off the rough, afterwards giving the whole a liberal dressing of a good fertiliser. We find superphosphate of lime, four parts, and one part sulphate of ammonia, although not very powerful, grows herbage of a close fine texture on our thin poor lawns. Remember that impoverished lawns are usually mossy and unsatisfactory, notwithstanding that defective drainage is often made a scapegoat. Frequently run a light Birch broom over the grass, as much to spread worm casts as for general neatness. Roll occasionally, thus preparing for the mowing that must soon follow. See that all mowing machines, scythes, and all tools connected therewith are in perfect order and readiness.

WALKS that are smeared and greasy must be forked over, the surface well broken up, levelled, and fresh gravel added if necessary, and rolled while wet to ensure a clear, solid, smooth, even surface, such as will afford pleasure to walk on in any weather. Other walks that are not in quite such a bad state may do with the iron rake heavily worked over them, edges trimmed, and finished up with a good rolling. During favourable weather, and before the ground gets dry and hard, apply an approved weed-killer to the whole, being careful not to spill any on the grass verges or other live edgings. Have this work carefully and well done, and it will not have to be repeated for a year. Since the use of weed destroyers has become so general it has lessened the work of the edging-iron considerably, for the turf is now kept within limits through the action of the weed-killers on the roots of the grass on the edge of walks. Keep *Nymphaeas* well under water, for many varieties will soon commence growing, and the tender leaves are easily injured by a slight frost or cold winds.

The Gardens, Tan-y-bwlch.

J. ROBERTS.

INDOOR GARDEN.

ZONAL PELARGONIUMS.—During the autumn and winter months the brilliant colours of the flowers of these have few, if any, equals. New varieties are ever on the increase. Many of the newer ones are a great improvement, both in form and size of flower. Now is a suitable time for rooting cuttings in a light, sandy soil. Insert three or four cuttings in a 3-inch pot. Place them in a warm house near the glass. When rooted pot off singly and place in a warm, airy house where the plants can get plenty of light. For the final shift avoid overpotting, as when somewhat pot-bound they flower much better. During July and August they may be stood outside. If grown for cut flowers a large percentage of the plants grown should be double varieties, as these last much better. A few of the scented-leaved section should also be grown. The foliage of the Oak-leaved varieties will be found very useful for cutting to arrange with the flowers of the zonals.

FORCED SHRUBS.—As these pass out of flower place in a house with a temperature of about 55° to 60° to make their growth. Many will require pruning back, but not so hard as if growing in the open air. Pick off all old flowers and seed vessels, taking care not to injure the young growing shoots. Repot those which require it, taking care not to overpot. A compost of fibrous loam and a little well-decayed manure will suit such things as *Prunus* and *Pyrus*. For *Azaleas* use a compost of at least two-thirds peat. Syringe morning and afternoon, or even oftener, on bright days. Take care after repotting not to allow the old soil to become dry. Give weak manure water to those not potted. Shading will be necessary for the newly-potted plants if the sun is very powerful. Flowering plants also last longer if shaded for a few hours the brightest part of the day.

GENERAL REMARKS.—Encourage growth on *Hippeastrums* as they go out of flower. Give weak liquid manure occasionally. Remove *Carnations* when rooted from the propagating frame and place in an intermediate house. Pot into 3-inch pots in about a fortnight. Use a mixture of fibrous loam, leaf-mould, and sand. Leave in the same temperature till rooted in the new soil, then gradually give cooler treatment. Start the principal batch of tuberous-rooted *Begonias* in shallow boxes filled with leaf-soil and sand. Half bury the tubers in this compost. Pot up as soon as the growth is 2 inches or 3 inches in length and place in a light position. Keep a good number back for flowering in August and September if the young seedlings are not well advanced. These are the months when greenhouse flowers are often scarce. Pot off *Salvia*

splendens cuttings when rooted. Stop several times to encourage sturdy growth. Insert a few cuttings from now till April for succession, and during May and June for plants in small pots. Pot on *Humea elegans*, using a rich soil in which a little charcoal should be mixed. Careful watering is necessary at all times, but more especially when newly potted. The earlier *Cannas* are now ready for 6-inch pots. Unless large specimens are required or more stock is needed remove all suckers as they appear.

Royal Botanic Gardens, Kew.

A. OSBORN.

ORCHIDS.

SHADING THE HOUSES.—It is now quite time to get the blinds or shadings on the houses containing these plants, so that they may be ready for use at any moment. Although the sun may not shine for more than three or four hours during the day, still, even at the beginning of this month it is often so powerful as to do serious harm if allowed to shine directly on the plants, especially in the case of *Aërides*, *Saccolabiums*, and *Angraecums* that have recently been repotted or top-dressed, also of young seedling Orchids of all kinds. In the *Odontoglossum* and *Masdevallia* houses, especially span-roofed and lean-to houses with a southern aspect, in which the temperature under the sun's influence will be rising higher than is good for these plants, shading should be used immediately the sun's rays are upon the houses. One of the conditions of a suitable kind of shading is that it combines sufficient light for the plants without direct hot sunshine, and to meet this requirement during the early spring months we stipple the glass outside with a mixture of ordinary house flour and water. Use it like very thin paint, and put it on the glass as thinly as possible, using an ordinary paint brush. Before using this mixture see that the glass outside is perfectly clean and dry. The best time to stipple the glass is when the sun is warm and bright, so that the mixture dries on quickly; it will not then wash off when ordinary rains occur. An equable warmth is maintained in the houses, and this is very noticeable in spring, when the fluctuations outside are considerable. The plants also receive more natural heat from the sun than when blinds are employed. By having the glass stippled in this way the blinds, even during the hottest months of the year, need not be let down nearly so early in the morning as usual, and may be drawn up several hours earlier each afternoon. The weather last summer afforded a capital test for this kind of shading, and the results were satisfactory so far as the majority of the Orchids at Burford were concerned, especially *Dendrobiums*, *Cattleyas*, *Laelias*, *Cypripediums*, and *Odontoglossums*. By the autumn the whitening on the glass becomes worn and thin, thereby gradually allowing more sunlight to reach the plants; thus the growths become better matured than formerly, consequently they will pass through a foggy and sunless winter admirably. In the *Odontoglossum* and other cool houses, where lattice-work blinds are used, and where they are elevated about 6 inches or 8 inches above the glass, this kind of shading is very beneficial. The Mexican house, if it be properly attended to as regards damping down and ventilation, will need no shading for the present, but the glass should be thinly stippled as soon as the sun gets really powerful. The blinds on the East Indian, *Cattleya*, *Dendrobium*, and Mexican houses should, when they are let down, touch the roof, as a maximum of sun-heat is the thing required for the plants in these compartments during the growing season. Gradually increase the ventilation in each house whenever the air is calm and mild; it is also well to remember that the warmer-growing Orchids do not appreciate large volumes of fresh air at this season.

Burford Gardens, Dorset.

W. H. WHITE.

KITCHEN GARDEN.

ROTATION OF CROPS.—The system of rotation cropping is generally practised in large gardens, but it is to be feared in small ones, through want of space (and other circumstances), this feature of good management is frequently overlooked. It is, however, quite possible, even in gardens of small dimensions, to arrange for a periodical change of crops, but there must be method in the arrangement, and for this reason it is advisable to draw a plan of the garden, numbering the plots, and keeping careful record of the crops grown on each, also how they have been manured and trenched. In this way practicable rotation may be arrived at. It will be found best when changing crops never to allow those of the same natural order to succeed each other; for instance, Cauliflower should not succeed Cabbage, nor Carrots succeed Parsnips. Root crops should, wherever possible, follow the Brassica family, and *vice versa*. I have found in cropping the kitchen garden that it is a good plan to allot a given space for root crops, such as Potatoes, Beet, Carrots, Parsnips, &c., allotting a like portion for leguminous, Brassica, and salad crops. Avoid the mixing of summer and early autumn vegetables with late autumn and winter varieties, such as Leeks, Parsnips, &c. By this arrangement a large part of the ground is early cleared, and can be prepared for future crops without interruption.

PEAS.—As soon as ground and weather permit, at least three different varieties of Peas should be sown. Sutton's Marrowfat is a good first; for a second *Gradus* is a reliable sort, and of excellent flavour; for the third in rotation I can confidently recommend Sutton's Maincrop Marrowfat, both for its prolific cropping and good cooking qualities. Drills should be drawn out 6 feet or 7 feet apart in the early part of the day and the Peas sown in the afternoon, using less seed than was the case with the earlier sowing. Leave ample room between the rows. When sowing time arrives other crops will occupy the spaces between.

BROAD BEANS.—The main crop of these may now be sown on an open break 3 feet from row to row, and

from 4 inches to 6 inches between the seeds. Favourite varieties are Green Windsor and Sutton's Mammoth Longpod.

POTATOES.—Tubers which were selected and laid in boxes to sprout, as directed in a former calendar, are now ready for planting in pots at the foot of a garden wall or on a warm border. For the earliest young Potatoes drain some 10-inch pots, place a handful or two of decayed leaves over the crocks, and half fill with light fresh loam; then plant the tuber in the centre of the pot and cover with loam to within 1½ inches of the top. Let them be grown in a temperature of between 60° and 70°. To have young Potatoes to succeed those grown in pots, every year I plant a few at the foot of a wall with a southern exposure. Tubers raised thus are safe from late frosts, and will be quite a fortnight earlier than those grown on an open border. On the open border plant in rows 2 feet apart, and 10 inches or 12 inches from set to set. J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

FRUIT GARDEN.

NEWLY PLANTED TREES.—February (the proverbial wet month of the year) has been very contrary to tradition this year in the matter of rainfall. Here this is considerably below the average, and it has already been found necessary to water trees which were shifted last autumn. It is very important that fresh-planted trees should not suffer from lack of moisture at the roots, and it will be well to examine those recently shifted; if the soil is at all approaching dryness a thorough watering should be given. Another point often overlooked is mulching. If this is not already done no time should be lost, or the roots near the surface will be in danger of perishing before growth begins.

CLEANING FRUIT TREES.—As soon as pruning and training are finished attention should be paid to cleaning the trees. American blight is responsible for a great deal of damage to fruit trees, and if allowed to get established (especially on young trees) there is a danger of the injury being permanent. Remove all loose pieces of bark, moss, and lichen from trees which are affected, as these serve as hiding places for the insects. Then thoroughly scrub the stems with a stiff brush, using a strong mixture of soft soap and lime water. Before Peach trees come into flower they may be syringed with a solution of soft soap and sulphur; this will ward off the attacks of aphids, which usually appear very early in the season, and if allowed to get a footing are very difficult to dislodge.

EARLY PEACHES UNDER GLASS.—The fruits in the earliest house are now swelling freely, and it is safe to increase the temperature at night to 60°, unless the weather is very cold, when 5° less are sufficient. Disbudding should be done at intervals of a few days, eventually leaving one shoot at the base and point of the fruiting wood, except where it is desirable to encourage young wood for the subsequent removal of old and bare branches. See that the trees do not suffer for want of water, and, in the case of old trees which are in full bearing, plenty of stimulant may be given. The syringe must be freely used on fine days or red spider will be troublesome. If the trees are attacked by this pest syringe with a solution of quassia and sulphur on two or three successive days. Trees in late houses, which it is desirable to retard as long as possible, should not be allowed to get dry at the roots or bud dropping will be the result. They may also be syringed on fine days. Fumigate the house before the trees come into flower. If cold, cutting winds prevail close the front ventilators. This is often the cause of much damage to the blossom. E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

THE KITCHEN GARDEN.

SPRING SALADS.

MANY are deploring the loss of the winter salad crops unless they can give glass protection, and even then there are losses, as the fogs we experienced in December and January played sad havoc with the Lettuce. At this date it is useless to dwell upon our losses, and those who require salads in quantity are obliged to adopt measures that will give good cutting material in the shortest possible time. Now a good salad should consist of a liberal proportion of Lettuce, which is the first to feel the effect of our erratic climate. Endive is plentiful, but it cannot entirely take the place of Lettuce. Chicory many persons object to, owing to its bitter taste. To provide a daily supply for the salad-bowl is by no means difficult. To get nice plants with good hearts is another matter, but these are not much in request till later on in the spring and during the summer.

Although my note chiefly refers to the supply during the early part of the year, I may add that

by sowing now in heat such kinds as Golden Ball, Commodore Nutt, or Dickson and Robinson's Little Gem, growing these on a slight hot-bed in frames from the start, good Lettuces may be had in three months from date of sowing, and these will be most valuable to form a succession to the earlier supply. Of late years more attention has been paid to what may be termed forcing vegetables and salads, of which Lettuce forms an important item.

We now have some splendid forcing sorts besides those I have named, such as Veitch's Golden Queen, one of the most valuable frame Lettuces grown, not quite so early to heart as Commodore Nutt, but a superior Lettuce; it keeps sound longer, and is a good colour. Another fine forcing Lettuce is Sutton's Little Gem. I am not fond of the Cos varieties for forcing purposes; this, however, is scarcely a true Cos, but intermediate between the two, valuable for its small hard hearts, with splendid flavour, and a valuable plant for exposed situations.

I have digressed somewhat, but salads in the spring are popular. I now come to the supply to make up the deficiency at this date from losses or other causes. Where there are heated pits or houses it is an easy matter to get good cutting Lettuce for the salad bowl. Our method is to sow very thinly in boxes, much the same as one would sow Mustard and Cress, but much more thinly; the seed is only very lightly covered with soil, over this a sheet of glass is placed, and the boxes are put in a temperature of 55° to 60°. We place ours over the hot-water pipes, and the seeds are through in a few days; then they are placed near the light and grown on. Careful watering is needed to prevent damping in dull weather. The plants are cut over like Mustard and Cress when 4 inches high, and a sowing is made every week.

There is no lack of sweet tender leaves for the salad bowl. Of course it is necessary to grow a forcing variety, not the very dwarf kinds, but those of quick growth, and which have a light colour. If a deep green is preferred, such as Perfect Gem and Golden Ball give variety. The plants like a light, warm position, free from drip, and the boxes should be well drained. As each lot is cut remove the top soil and add new, making it firm. As will be seen, the work is most simple; at the same time it gives a reliable daily supply, and at a small cost; indeed, during the last few seasons in heavy soils or exposed situations I do not think it has paid to sow in the autumn; there have been so many failures. By growing in boxes now and later on in frames, the demand will be met, with less difficulties to contend with. G. WYTHES.

IRISH AND SCOTCH POTATOES.

HAVING regard to the high reputation Scotch-grown Potatoes have obtained for cropping capacities when planted in the South of England, a well-known Irish grower, anxious for the fair fame of the Emerald Isle, has expressed a strong desire that some Irish-grown seed tubers may be planted, in conjunction with those of Scotch growth, in England, of similar varieties, some of English growth being grown also.

Such a trial should have much value for English growers, and if it be proved that Ireland gives to tubers for seed purposes the same robust cropping qualities Scotland gives to her Potatoes, then will English growers have two strings to their bows. I have already made arrangements for two such trials, one in Surrey and one at Reading, and I hope a third may be conducted at Wisley. I look to be able to plant—Up-to-Date, for instance—tubers of Home, Irish, Scotch, Cheshire, and Hampshire growth. Our trials have in the past been too much restricted to the testing of new varieties. There are many other matters worth testing. A. D.

WORKERS AMONG THE FLOWERS.

MR. JOHN SEDEN, V.M.H.

FOR more than forty-three years Mr. John Seden has been connected with the firm of Messrs. James Veitch and Sons, Limited, Chelsea, and during that time has probably produced more new plants and fruits than any other horticulturist. Now that Mr. Seden's retirement, on a pension, is announced we may fittingly recall some of his unique experiences. It is perhaps among Orchids that Mr. Seden's work has been chiefly carried on, and one has only to think of the many displays of beautiful hybrid Orchids made by the Chelsea firm to recognise how wonderfully he has enriched the collections of Orchid growers and lovers. It was in 1873 that Mr. Seden's first hybrid Orchid (*Cypripedium Sedeni*) flowered, and since then, we learn from the *Gardeners' Chronicle*, Mr. Seden has to his credit as a raiser the following remarkable list of Orchids: 150



MR. JOHN SEDEN, V.M.H.

Cypripediums, 140 *Lælio-Cattleyas*, 65 *Cattleyas*, 40 *Dendrobiums*, 25 *Lælias*, 16 *Phalenopsis*, 20 *Epidendrums*, 12 *Masdevallias*, 9 *Calanthes*, 8 *Sophro-Cattleyas*, 5 *Phaio-Calanthes*, 6 *Disas*, 4 *Zygopetalums*, and other hybrid Orchids.

Mr. Seden, however, has not restricted his efforts to the Orchid family, but he has also raised many new and meritorious fruits, Roses, and greenhouse flowers. Among Roses are *Queen Alexandra* (Crimson Rambler × multiflora simplex), *Electra* (multiflora simplex × W. A. Richardson), and *Myra* (wichuraiana × Crimson Rambler). The fruits raised by Mr. Seden are too numerous to mention fully. To give some idea of the valuable results he has obtained in this direction, we might mention among Strawberries, Veitch's *Perfection*, Veitch's *Prolific*, *The Alake*, *The Khedive*, and *Lord Kitchener*. Of Apples we have *Langley Pippin*, *Middle Green*, the Rev. W. Wilke, Mr. Leopold

Rothschild, and others, as well as several Crab Apples. The *Langley Bullace*, *Damson Farleigh Prolific*, numerous fine Gooseberries and Raspberries, and *The Mahdi*, the result of a cross between the Blackberry and the Raspberry, are other fruits that bear witness to the painstaking and properly directed efforts of this famous hybridist. We will not detail how, largely through Mr. Seden's early efforts, some of the finest strains of *Gloxinias* and *Begonias* have been obtained, and other valuable exotic plants given to the cultivator. It is probably true that no man has enriched our gardens with new flowers and fruits to such an extent as Mr. Seden. He was one of the original sixty chosen to receive the Victoria Medal of Honour by the Royal Horticultural Society in 1897.

HOW TO MAKE AND KEEP YEW HEDGES.

(Continued.)

CARE OF THE HEDGE.—Keeping a Yew hedge in good condition is not difficult if it is clipped and attended to regularly; this should be at least once a year. After the hedge is planted it will not require clipping until the second year, though any long shoots that stand out beyond the line of the hedge may be cut away at the time of planting. May is the best month for clipping, though a second light trimming over may be given in September if the plants are growing freely and making strong shoots. Autumn pruning, however, should be very light, consisting more of the removal of any strong shoots that have appeared since the hedge was cut in the spring than a regular clipping all over.

A Yew hedge up to about 6 feet in height should be cut square at the sides and flat on the top, but above that height the sides should slope inwards so that the top is only about half the width of the base. With high hedges cut square it has been found that the top grows at the expense of the base, the latter in time becoming thin, weak, and unsightly. A narrow-topped hedge, also, does not favour the accumulation of snow, though the Yew does not get broken about by snow so much as some other plants do when used for hedges.

Neglected hedges.—If a Yew hedge has been neglected for some years and becomes broad and irregular, with bad places in it here and there, it can be brought into shape again by a thorough overhauling and feeding. In the first place, it should be cut hard back in late spring just as growth commences, taking care, however, not to go back too hard, as the Yew does not break freely from very old wood. It should also be lowered to half its former height; this is most important, as if not cut down the lower part of the hedge will not become properly furnished.

At the same time a shallow trench should be dug along each side about 3 feet from the stems, and filled up with a mixture of good turfy loam and well-rotted manure in about equal parts. This is also a good way of renewing a hedge which shows signs of weakness or starvation, the Yew being a gross feeder and requiring a little help occasionally, even in good ground. The two main points, however, in making and keeping a Yew hedge are to prepare the ground thoroughly in the first instance and to give the hedge regular and proper attention afterwards.

It is to be hoped that the remarks made on the proper upkeep of Yew hedges will be useful. A Yew hedge when kept properly trimmed is a beautiful feature, but through a want of knowledge as to its management it is allowed to get bare and unkempt, and it is then very difficult to restore its vigour.

J. CLARK.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

NAMES OF PLANTS.—*W. J. Waterhouse.*—A, *Thuya dolabrata* var. *variegata*; B, *Cupressus sempervirens* var.; C, *Cedrus atlantica*; D, *Cryptomeria japonica* var. *elegans*; E, *Cupressus pisifera* var. *squarrosa*; F, *C. lawsoniana*; G, *C. pisifera* var. *plumosa aurea*; H, *C. lawsoniana* var. *glauca*; I, *C. lawsoniana* var.; J, *Berberis nepalensis* (B. *japonica*); K, specimen too withered to identify. Your question re *Coniferae* has been noted, and we hope to deal with the subject at an early date.—*J. M. W.*—Owing to the extreme variability of *Croton* leaves, even on the same plant, it is impossible to name them with absolute certainty, but as far as we can judge the names of those sent are as follows: 1, *Williamsii*; 2, *Hookeri*; 3, *evansianus*; 4, *variegatum*; 5, *Queen Victoria*; 6, *Heroicus*; 7, *Etna*; 8, *variegatum*; 9, *Weismanni*; 10, *Countess*; 11, *Mrs. Icton*; 12, we cannot find a variety with a leaf like your No. 12, and can only suggest it may be a seedling which has not been named.—*T. J. M.*—1, *Luculia gratissima*; 2, *Winter Sweet* (*Chimonanthus fragrans*); 3, *Danæa Laurus*, better known as *Ruscus racemosus* (*Alexandrian Laurel*).

LIST OF FERNS (A. B.).—*Adiantum cuneatum*, *A. c. gracillimum*, *A. c. Pacotti*, *A. decorum*, *A. scutum*, *A. formosum*, *A. pedatum*, *A. reniforme*, and *A. Capillus-Veneris*.

TRIMMING EVERGREENS (M. A. E.).—Spring is the best time. Yes, trim the Ivy fairly close to the wall.

BONES AND BONEMEAL (An Amateur).—We think Martin's Bone Cutters would suit you, to be obtained from 199A, Bishopsgate Street Without, London.

PARSNIPS AND CARROTS (H. G. T.).—Before using the manure turn it over well and mix some lime with it to clear out the worms. They would not injure the Carrots and Parsnips, however. Take care there are no wireworms in the soil; these would be very destructive.

PLANTING LILIUMS (Norold).—Early autumn is the best time; you may, however, plant them now, the sooner the better. A moderately moist peaty soil is what *L. auratum* likes. *L. auratum* is a very difficult Lily to keep for more than about three years. It generally gradually dwindles away. If your soil is not water-logged, and you mix some peat and sand with it, it ought to suit the plant.

GUMMING IN PLUM TREE (Orleans).—If your Plum Tree is very badly gummed, the best thing to do would be to cut off the affected branches and burn them, afterwards carefully coating the cut surfaces. If the branches are not badly diseased, the best thing to do is to wash the bark frequently in damp weather with a brush and water; it is, however, difficult to cure if the tree is badly affected. Manuring the tree would be more likely to increase than to decrease the gumming, for the latter most frequently occurs when the

soil is richly manured and growth is consequently too luxurious. Lifting, root-pruning, and planting in poorer soil is recommended to check gumming. Judicious pruning of the growths in summer, so as to ensure the production of moderately strong shoots instead of gross unfruitful ones which have to be removed. The unhealthy state of the tree probably accounts for the fruits cracking.

PLANTS FOR ROCKERY (M. A. B.).—Try *Arabis albidia*, *Alyssum saxatile*, *Aubrietia deltoidea*, *Cerastium tomentosum* (silvery foliage), *Alpine Pinks*, *Armeria* (Thrift), *Helianthemum* (Rock Rose), *Iperis*, *Campanula garganica*, *C. muralis*, *Alpine Wallflower*, *Androsace sarmentosa*, *Anemone robinsoniana*, *Genista prostrata* (shrub), *Linaria alpina* (Alpine Toadflax), and *Myosotis alpestris* (Alpine Forget-me-not). Of commoner things, *Creeping Jenny* (*Lysimachia Nummularia*), *Saxifraga umbrosa*, *Periwinkle* (minor), and *Sedum acre* (*Stoncrop*).

SWEET PEAS (W. E. Stafford).—Keep your clumps of Sweet Peas to one colour; do not buy mixed packets. You can then arrange the colours as you please. The following are good: *Dorothy Eckford* (white), *Lady Grizel Hamilton* (pale blue), *Captain of the Blues* (blue), *Hon. Mrs. Kenyon* (pale yellow), *Gladys Unwin* (pink), *Salopian* (crimson), *Othello* (maroon), *Mrs. W. P. Wright* (purple), and *Scarlet Gem*. You might have them in this order: White, pale blue, blue, purple, yellow, pink, scarlet, crimson, maroon. Consult a Sweet Pea grower. Several advertise in our pages.

QUICK-GROWING HEDGE (Hodges).—If you prefer an evergreen plant *Arbor vitæ* (*Thuja occidentalis*). You can obtain big plants cheaply that would make a good screen at once. *Privet* and the *Myrobalan Plum* are two good quick-growing hedge plants; both lose their leaves in winter. The *Quick Thorn*, mixed with the *Privet*, strengthens the *Privet*, which is apt to be lanky when it grows as high as you want it. You would probably find the *Privet* hedge most satisfactory for your district. Plant in good soil, mulch with manure, and water well in summer.

AZALEA INDICA (Norold).—After flowering place your Azaleas in a house of the temperature of about 60°. Close the house early in the afternoon so as to warm it still more by sun-heat. Syringe the plants a good deal every day, especially when you close the house. You must, by giving them a close moist atmosphere, encourage them to make good growth. By the end of May give them a cooler temperature, and finally place them out of doors altogether during summer. Put them in a frost-proof house in the autumn. To get good buds you must first have good growths. Water well during summer, and give manure-water occasionally.

BEGONIA CULTURE (Delta).—As the plants show signs of exhaustion after flowering, keep them rather dryer at the roots in a house of the minimum temperature of 55°. As the days lengthen a warmer temperature of 60° to 65° is better; in this the plants, which must be shortened back previously, will push forth young shoots from the base. These may be taken off and inserted as cuttings. They form the only suitable cuttings; shoots from the flowering stems are useless. When rooted take out of the propagating case into a cooler temperature, say, of 65°. Pot into 3-inch pots in a soil of loam and leaf-soil, and some sand. When well rooted pot them into 5-inch pots, and there they will flower next autumn and winter. A minimum temperature of 55° is essential. If you do not want to root cuttings leave the young shoots to grow cutting the old stems to within a few inches of the soil. Take care not to cut off any young shoots at the base. When the young shoots are an inch or so long, turn the plant out of the pot, shake away a good deal of the old soil, and repot in soil composed of two parts loam, one of leaf-soil, and one

decayed manure, with some sand intermixed. Give them a minimum temperature of 50° throughout the summer, and attend carefully to watering; in autumn the temperature must be at least 55°. Give weak manure water when the pots are full of roots.

BEDDING PLANTS (T. Hunter).—The plants you mention are easily propagated by means of seeds in a warm house. Sow the *Cineraria* and the *Centaurea* under glass, and the *Beetroot* may be sown out of doors. Write to Mr. W. Watson, Royal Gardens, Kew, for information about the British Gardeners' Association.

CLIMBERS FOR SHADE (George Bell).—Ivy, *Ampelopsis Veitchii*, *Forsythia suspensa*, *Clematis montana*, *Dutch Honeysuckle*, *Ceanothus veitchianus*, *Jasminum nudiflorum*, *Crataegus Pyracantha*, *Polygonum baldschuanicum*; any of these ought to give you satisfaction. You might also try some of the stronger growing *Roses*, although you could not get very much flower from them if the shade is dense. Longworth Rambler would probably do as well as any.

FERNS (S. F. E.).—In the greenhouse plant *Adiantum Capillus-veneris*, *Asplenium bulbiferum*, *Pteris argyræa*, *P. cretica*, *P. c. albolineata*, *P. c. Mayi*, *P. serrulata*, *P. tremula*, *P. t. Smithiana*, *Nephrodium molle*, *Osmunda palustris*, and *Polypodium aureum*. In the stove plant *Davallia bullata*, *Microlepia hirta cristata*, *Nephrolepis Bausei*, *N. exaltata*, *Pteris umbrosa*, *P. tricolor*, *Adiantum Bausei*, *A. lunulatum*, and *A. tinctum*. Plant *Selaginella kraussiana* and *S. Martensi*.

EFFECTIVE SHRUB (C. H. F.).—If you plant a *Rhododendron* you must give it a good peaty, well-drained soil in which to grow; this is the most necessary as your soil is clayey. Take out the clay and replace with peat and loam in equal proportions, and put broken bricks on the bottom for drainage. *Michael Waterer* (bright red) or *Sapho* (white with black blotches) are very good. Why not plant a *Laburnum*, *Lilac*, *Pyrus Malus floribunda*, or *Amelanchier canadensis*? The two latter are beautiful spring-flowering shrubs. You should certainly take out some of the clay, drain, and replace with good soil.

VINE ROOTS DYING (F. B.).—We can find nothing in the soil to account for the roots dying. We notice that the soil seems very loose and that the roots have little fibre. You send surface soil; perhaps deeper the soil is sour and water-logged, and the roots have got into this. We think the best thing you can do is to lift the vines and replant in good turfy loam, taking care to keep the roots a few inches below the surface. Make sure the drainage is good. Have you been careful with watering and with the use of artificial manures? We are inclined to attribute the damage to too much of the latter, so far as we are able to tell from the particulars you furnish, or to the roots having got into sour soil. Their absence of fibre supports the latter theory, and the fact of their dying the former. If we can help you further write again.

AMARYLLIS BELLADONNA (N. L. K. P.).—Your pots of *Amaryllis Belladonna* now in full leaf must be encouraged to make good free growth, as upon this the future display of flowers depends. They must be kept well supplied with water, fortnightly doses of liquid manure being also beneficial. This attention is necessary till the leaves show signs of going to rest by turning yellow, when the water supply must be lessened, and when they are totally dormant discontinued altogether. This will probably be about midsummer or even earlier, when the pots should be stood in a position fully exposed to the sun, so that the bulbs get a thorough ripening. Then, by the middle of August they must be again watered, when if they contain embryo blossoms the flower-spikes will soon make their appearance, followed after a time by the leaves which grow throughout the winter and spring.

VIOLET PLANTS UNHEALTHY (B.).—The Violet, perhaps more than any other plant, resents a close and unhealthy atmosphere for any length of time, and suffers injury in consequence, especially the more tender section of the plants, to which the variety Marie Louise belongs. That the cause of failure is not to be found in the roots is evident from their healthy and robust condition. We are inclined to think with you that the cause is to be found in the substitution of the close-textured old carpet for protection in hard weather instead of Fir branches as previously. The latter would admit more or less air, while the latter, by its density, would seal the frame completely, and so help to stifle the plants.

FERNS IN CASE (A. E. Y.).—If you keep the wood well painted it ought to last fairly well. Of course, if the case is constantly moist the wood will decay more quickly than if the atmosphere were dry. You will do wrong, however, to keep it in a state of constant moisture, especially as it is unheated. The soil will get sodden, and the plants soon suffer in health. You had better grow all the plants in pots. Grow *Adiantum cuneatum*, *Pteris tremula*, *P. serrulata cristata*, *P. cretica albo-lineata*, *Asplenium bulbiferum*. *Fuchsias*, *Begonias*, or zonal *Pelargoniums* (*Geraniums*) would suit you best.

TULIP TREE (M. E. Hughes).—Cut out all dead wood, and cut back the ends of the branches when they are dead. If the branches are very crowded it would be advisable to remove some of them. It is difficult to do very much to resuscitate a very old tree like yours that is apparently suffering from old age. The best thing for the roots would be to give a top-dressing of rich soil (soil with plenty of farm-yard manure incorporated) over the area of the spread of branches. Remove the present soil several inches deep, until, in fact, good roots are found, then, having taken off the worn-out soil, fill up the space with new. This may be done any time now if the weather is mild. During summer copious supplies of water should be given in dry weather. A mulch of littery manure, placed on the ground as far as the branches extend, in May, and left there during summer, would be of help in keeping the roots moist. The roots of the old tree may have suffered from want of water. Mulching, watering, and giving new soil will restore it to health if it is not too old and worn out.

HOW TO START A FLOWER SHOW (F. W. H.).—You ask us to give you a few hints on the best way to start a small flower show, also the best way to set about it. Much depends upon what your object is. Do you want to encourage only the cottagers and amateurs in your neighbourhood, or do you wish to embrace all sections and bring in the professional gardener? If you wish to make an attractive exhibition, you should make it representative of all classes. Ways and means are essential considerations, and before anything else can be done you should invite to meet you those likely to support such a venture, both financially and as exhibitors. A small committee should be appointed, together with a secretary, treasurer, chairman, and president, beginning by electing the chief officers first of all. It is well to appoint a collector, whose duty it should be to obtain subscribers and collect subscriptions from those who promise their financial help. The committee at their first meeting should draft a set of rules to meet the needs of such a society, also a set of regulations to govern the exhibition and exhibitors. No hard and fast rule in this particular can be laid down, the needs peculiar to the society and its objects being specially provided for by those who determine to control its functions. The period of the year in which the show is to be held will largely determine the subjects that are to be considered for in the exhibition. For a small local show, late July or

some time during August is a suitable period. In the gardener's section, classes respectively for flowering and foliage plants, both individual specimens and groups of a given number should be provided for. Specially arranged groups of plants of a miscellaneous character should appear in the same section. Cut flowers, both hardy and stove and greenhouse kinds, should each receive attention, and also fruits of a seasonable kind, and Grapes also. In the *bonâ fide* amateur and cottager's classes, cut flowers, bush fruits, vegetables, both single dishes and collections calculated to meet the capabilities of these classes of exhibitors, usually receive hearty support, and make a most interesting show. We think a flower show alone is better than a joint show of flowers and poultry. The cost largely depends upon the number of prizes you offer; but you may lessen your liabilities by asking some of your more wealthy friends, and those, too, who are interested in such a venture, to promise special prizes for some of the subjects you or your committee may determine to make classes for.

IMPROVING LAWN (G. E. C.).—We should advise you to stimulate the growth of the grass by passing the rake over it vigorously. This will make the lawn look very rough for a time, but it will be all the better afterwards. After the raking you must mix some manure (preferably a special lawn manure obtainable from seedsmen), with rich sifted soil and spread it over the lawn. A cartload of soil with $\frac{1}{2}$ cwt. of manure would make a good top-dressing. Mix the soil and manure a fortnight before applying it, and turn it so as thoroughly and evenly to mix the manure with the soil. Then spread the manure evenly over the grass, rake it over lightly, and roll it after three or four days. On the bare patches sow some grass seeds at the rate of a bushel per acre. Rake the seeds in, covering as many as possible. Do not sow when the grass is wet or many seeds will be wasted. This work should be done in early March.

PLANTING SMALL GARDEN (W. Thornton).—We would suggest that you make a border 7 feet wide, with a grass edge 2 feet wide between it and the path; this will exhaust the space at your disposal. Before planting anything dig the soil thoroughly, say, 18 inches deep, and add some manure to it, unless, of course, it has recently been dug. We can only give you a general idea of what to plant here; you may obtain some help from the coloured plate of a mixed border given with *THE GARDEN* for February 4. You should try to make a general arrangement so that the colours beginning at one end and following like this—white, blue, yellow, orange, red, yellow, blue, and white. Have the plants in groups, according to our suggestion. Here are eight groups of colour that would give, roughly, 4 feet to each colour. Of white flowers, plant *Lilium candidum*, Japanese Anemone, white Hollyhock, Sweet Pea Dorothy Eckford, Lupin, Galega, Stock, and Campanula; of blue plants, *Delphiniums*, *Aconitum*, *Galega*, *Nemophila* (annual), Sweet Peas, *Nigella* (annual), and *Eryngium*; of yellow, *Coreopsis*, Sweet Pea Hon. Mrs. Kenyon, Hollyhocks, Marigolds, Sunflowers (small flowered), and evening Primrose; orange, *Lilium umbellatum*, crocus, *Nasturtium*, Marigold, and Tiger Lily; red, *Lobelia cardinalis*, *L. fulgens*, Sweet Peas, *Linum grandiflorum rubrum*, Pentstemons, Poppies, *Phloxes*, *Lychnis*, and Hollyhocks. These are good plants, although there are many others. Only experience will teach you how to make a good mixed border.

PEACHES AND NECTARINES (J. T. D.).—In a short answer it is not possible to give you full cultural directions for the Peach, Nectarine, and Apricot. Probably "The Book of the Peach," by H. W. Ward, would help you. "The Fruit Garden" (Newnes, 21s.) gives complete directions. Plant the trees against either a south or west wall. Dig and manure the soil before doing so; drain with broken bricks if necessary. If the Peach

trees are formed, as they will be if purchased from a reliable nurseryman, the important point to remember is that the flowers, and therefore fruits, are borne on shoots made the previous year. Thus fruit in 1905 will be produced on shoots made in 1904. When the shoots have fruited they must be cut out and others at their base trained in to fruit the following year. (See *THE GARDEN*, February 11, for article on this subject, illustrated). Protect the trees with canvas or netting when in bloom. Water well during dry weather in summer. Plant the Apricot against a west wall rather than a south. Do not give them much manure, and prune the branches very little. They are liable to die off. The fruits are produced on spurs which form naturally. Protect while in bloom. These remarks refer to outdoor culture. It is not advisable to grow the Apricot under glass except in quite a cool house.

BEDS NEAR HOUSE (Lancaster).—*Begonia Lafayette* or *Worthiana* would suit your purpose. Yes, *Fuchsias* would do; plant light varieties, not the purple ones. *Abutilon* or *Acalypha* or *Grevillea* might be planted among the *Fuchsias*; they have handsome foliage. Plant the *Fuchsias* 15 inches and the *Begonias* about 12 inches apart.

DENDROBIUM NOBILE (C. T.).—The two plants should now be introduced into a little more heat, which will help to swell up the flower-buds and induce a stronger development of flowers (50° minimum to 60° maximum), without sun-heat, and, of course, a few degrees higher with sunshine. The plants should not be repotted until they are out of flower and the young bulb growth commences to move, which should be in about a month's time. As regards potting on or dividing, this will depend on whether smaller or larger plants will suit your purpose best. If the latter, the specimens should be shifted into 10-inch pots or pans, in which they will make fine specimens in the course of a few years. It might answer your purpose to break one plant up into smaller pieces and pot on the other one. The compost for this Orchid is one part fibrous Orchid peat broken into lumps the size of a Walnut (free from small and loose peat), two parts best live sphagnum moss cut up small, one part of charcoal, and clean crocks. The charcoal should be in half inch to one inch lumps, the crocks in quarter inch, and the whole well mixed together. Ample drainage must be provided, filling the pot one third its depth with crocks. The crown of the plant when potting is completed should be slightly higher than the rim of the pot, and the potting should be firm.

HOLLIES FROM SEED (R. G. B.).—To grow Hollies from seed the berries should be gathered in November, mixed with damp sand, put in a heap outdoors, and covered with a few turves. The heap should be put in a conspicuous place where it will not be destroyed, but it need not be sheltered from the weather, as rain and frost both assist in the dessication of the fruit. About the middle or end of the following April prepare a bed of fine soil in the open, preferably in a moderately damp spot, and fully open to the sun. The heap of berries and sand should be rubbed through a sieve with meshes sufficiently large to pass the seeds, taking care they are all separated from each other, and then sown evenly over the bed, covering them about a quarter of an inch deep with fine soil. The bed should then be covered with Bracken, Heather, straw, or canvas, the latter for preference, as it is removed more easily for weeding the bed. A few seeds may germinate the first year, but the majority will not appear until the second summer, and a few will not come up until the third year. The seedlings will require transplanting when they are 3 inches to 4 inches high, and should be moved annually for the next two or three years. It is a slow process to grow Hollies from seed, but it is very interesting to those who can spare time to do it.

GREENHOUSE PLANTS IN PANS (*Doctors' Common*).—There is nothing gained by placing the plants in water at this season of the year, when they are not in vigorous growth. In summer, the Arums, Spiræas, Palms, and Azaleas would benefit by being placed in pans of water, for the roots of all these require a good deal of water. If these were placed in pans of water, as you suggest, there would be no danger of the roots becoming dry, a condition that is, of course, injurious. Do not adopt this method until later in the season, for there is little danger now of the roots of your pot plants drying so quickly as to prevent your attending to them properly.

ERADICATING BEANBINE (*J. S. Birch*).—One of the most troublesome of all weeds to deal with, owing to the fact that the roots or underground stems penetrate so deeply into the soil, and if broken into pieces every little bit will continue to grow. The only way to get rid of it is by persistently forking over the ground, and picking out every bit which can be seen, even to the tiniest scrap. The more thoroughly this is done the more likely you are to be satisfied with the results. If you cannot disturb the soil during the summer for fear of interfering with other plants that may be in the ground, every bit of the weed should be pulled out as soon as it appears above the surface, as this will help to weaken the underground portion. Then, in autumn thoroughly overhaul it again and burn every bit you pick out.

HERBACEOUS PERENNIALS (*Novice*).—If you have room, a border from 5 feet to 10 feet wide (according to your space and plants) would be the way to grow the plants to the best advantage. You must first well dig and manure the soil, or the growth of the plants will be unsatisfactory. Many Perennials are vigorous growers and root freely. Plant in groups and take care that the colours are pleasingly associated. We give a selection—*Spring*: Alyssum saxatile (yellow), 6 inches; bulbs in variety, Wallflowers, Anemones, Myosotis, and Polyanthus. *Summer*: Lupines (blue and white), 3 feet; Phloxes, Sunflowers in variety, Flag Irises (blue chiefly), 3 feet to 4 feet; Lobelia cardinalis (scarlet), 3 feet to 4 feet; Helenium (yellow), 3 feet; Galega (pale blue), 3 feet; Gaillardia (yellow), 2½ feet; Alstromeria (yellow), 2 feet; Anchusa italica (blue); Campanula persicifolia (blue and white), 3 feet; Chrysanthemum maximum 2½ feet; Coreopsis grandiflora (yellow), 2 feet; Delphinium (shades of blue), 4 feet; and Eryngium amethystinum (blue), 3 feet. *Autumn*: Aconitum autumnale (blue), 4 feet; Anemone japonica (pink and white); Michaelmas Daisies (shades of purple and rose and blue), 2 feet to 6 feet; Dahlias, Chrysanthemums, Montbretias (yellow and mauve), 3 feet; Rudbeckia (yellow), 3 feet to 4 feet. Then, of course, you must have Sweet Peas and many other hardy annuals. For these see the articles now appearing in THE GARDEN.

REED MATS (*E. M. D.*).—For making these mats the common Reed (*Phragmites communis*) is used. They should be cut in autumn and stored. These Reeds are abundant in some parts of the Eastern Counties, in marshland in Sussex and elsewhere, and are sometimes cultivated for thatching purposes. To describe the making of them in the words of an expert: "Four stout pieces of wood (of the required size) are nailed together as a temporary framework, and long nails 1 foot apart are inserted at the top and bottom, to which are fastened stout strands of tar rope, which act as ribs to the mats; then, commencing at the bottom, small bundles of Reeds (about twelve in each) are laid alternately the heads one way and the stems the other, whereby the mat is kept at an even thickness throughout. Round each of these we fasten a smaller strand of tar string tightly round the straight strands or ribs with a loop or half-hitch knot, which binds the whole firmly together. When the required length is completed, the ends of the

strings are loosened from the nails, and plaited together which form a very strong edging at top and bottom and the ends are cut off level with a pair of shears. They may then be rolled up and tied round until required." Where Reed is not easily obtainable, straight and thick straw, though not quite so suitable, may be used instead. Mats very similar in make to these, if not identical, are largely used in Belgium, and samples could probably be obtained without difficulty. The ordinary size is from 7 feet to 8 feet in width.

COTTAGE GARDEN COMPETITIONS (*M. G. L.*).—As cottage garden societies and garden and allotment competitions are so common in this country, such societies being found in almost every rural village or district, it is difficult for us to understand the action of the cottagers in your locality in refraining from entering the classes you have formed with prizes attached. Is there any feeling of distrust on the one hand, or of a dislike to seem to accept favours on the other? Such feelings are far from being unknown here, although we have competitions so plentifully. The great difficulty is, first, in inspiring in cottagers the needful spirit of emulation, the second to make them understand that the better the work they put into their gardens and the better their crops the more do they profit, and we fully believe that it is an earnest desire to arouse in them and promote these feelings, which induces yourself and friends, as in others, to seek to obtain in cottage gardens much better work and cropping than is so commonly the case. We know of no book that deals with the subject. It would not be one to command a wide sale. If it were possible to get the cottagers together in meeting, and have some one conversant with the subject to talk to them, something useful might be done. The great thing is to win their confidence. Possibly if small books were distributed they would not be read. Nothing is more difficult to overcome than is a sort of constitutional "don't-care-ness." Here in England, where the county and district councils do so much to promote cottage and allotment gardening, by providing practical gardeners as horticultural instructors, and also employ them to lecture to the people and act as garden and allotment judges, very much that is helpful is accomplished. It would be well could your councils do something similar in Ireland. Ask further yet if you wish.

USING MANURE (*Regular Reader*).—It is useless to leave the straw in the manure except, as you say, when the ground is light; then it would be of some advantage in improving the mechanical condition of the soil. As the manure is collected from the stables put it into a heap and turn it twice, at intervals of two weeks, before putting it on the soil. Dry straw manures are of little use, as the plants find nothing to utilise in them. You should arrange to prevent the loss of the manurial matter, for it is valuable. Can you not drain it into some receptacle? Turn the heap once a week for two weeks, and then dig it in the ground where there are to be no crops for some time.

PROTECTING CACTUS DAHLIAS (*Cactus*).—There are several contrivances for protecting blooms of Dahlias for exhibition. A very old one is that of a deal stake, cut square, about 1 inch in diameter; upon this is fixed a deep inverted saucer-shaped zinc frame to which is attached an arm and shaped at the end so as to fit on the stake and slide up and down as required. It is fixed in position by means of a screw. The shade should be 1 foot in diameter. "One rough and ready method is to nail a chocolate box (without the lid) on the end of a stake, and secure the flower to the stake, to prevent its beating against the side of the box. Another way is to make a frame of wire or wood the same shape as the roof of a house and stretch canvas over it; painting the canvas white and fastening the frame to a stake, either fixed or so that it will slide up and down; this is a very cool arrangement." ("The Dahlia," by William Cuthbertson.) The more delicate

Cactus Dahlias—those of creamy and pink shades, or such as are delicately tipped—often need close shading to have them in all their refined beauty. For this purpose it is usual to have a piece of flat circular board, 12 inches to 15 inches in diameter, affixed to a stake, with a wedge cut out half-way across, so that the stem of the flower can be in the centre; and the bloom, properly secured, is covered with an inverted flower-pot. Such a method of shading is usually commenced a week in advance of the show. This period is usually long enough for any method of shading. Mr. John Pinches of Camberwell has recently put an improved shade on the market, of which Dahlia experts, we believe, speak highly.

ROMNEYA COULTERI (*H. L. N.*).—Do not on any account move your Romneya. Transplanting this tree Poppy is a most risky operation, especially if the plant is a large one, and generally leads to its death. Even in shifting seedlings from the seed-pan to small pots many often die, as they do in later repottings. There is no necessity to grow Romneya Coulteri against a wall, as it has proved to be a fairly hardy subject, since it has done well unprotected in Scotland and North Wales. It does not pay in the long run to allow the Romneya to make growth from last year's wood. Plants treated in this manner have, in two or three years, attained a height of 9 feet or 10 feet, and been handsome objects for that period, but have subsequently died. Permanent vigour is, however, obtained by limiting the growth to that of the current year, though the plants do not reach so great a height. It would, however, be unwise to cut the old growths back to the base just at present. This should be done after danger from severe frosts is past, say, during April.

HELIOTROPE (*Northiam*).—The Heliotrope is suffering from a fungoid attack, set up by an excess of moisture in the atmosphere. These plants are particularly liable to be attacked in this way during the winter months, but as a rule they quickly grow out of it as spring advances. To keep them fresh and green throughout the winter keep a temperature of 50° to 60°. Should any signs of disease appear the infected part must be at once dusted with sulphur. If you treat your plant in this way now, and give a moderate amount of air when the weather is favourable, it will soon gain strength if the roots are in a healthy state, for without this no permanent good can be hoped for. If you have any doubt as to the condition of the roots the plant should be turned out of the pot, as much as possible of the old soil removed, and repotted in a mixture of two parts loam to one part of leaf-mould and a liberal sprinkling of silver sand. After this take care not to over water till the roots are in possession of the new compost. At the same time do not let the soil get too dry.

MAIDEN TREES OF APPLES AND PEARS (*W. H. F.*).—The time for pruning these trees is from Christmas to March, but the work, in your case, should be done at once. The maiden trees, as you say, are formed of a single stem, the growth of last year. These, we presume, will be of varying length and strength. The strongest shoots should be cut back to within seven buds of their base. This will result in these seven buds breaking strongly and growing into vigorous shoots in the course of the summer. The topmost bud will grow in an upright direction and form what is termed the main shoot of the tree, the six lower buds will produce shoots which will grow vertically, forming the foundation.

IMPROVING WEAKLY LAWN (*R. G. B.*).—The basic slag should have been applied earlier than this, but it is not too late now at the rate of from 6lb. to 8lb. per pole. The dressing of nitrate of soda should be applied at the end of this month in showery weather at the rate of 3lb. or 4lb. per pole. Before applying the latter it should be ground down as fine as possible.

VIOLET PLANTS (H. W. P.).—Yours are well grown plants, and it is a pity they have received such a severe check; but by keeping them cool and giving as much air as possible (without exposure to frost), we think they will yet come round and give you a good return of flowers later on. We have frequently seen similar results from a bad fog or growing them in too warm an atmosphere, or both combined, causing the leaves to be tender and unable to stand against frost, or being covered up against frosty weather in the dark days of winter.

SOCIETIES.

LIVERPOOL HORTICULTURAL ASSOCIATION.

A MEETING of the above was held at the society's office quite recently, Mr. T. Foster presiding over a small attendance of members. This was somewhat surprising considering the importance and interest of the subject announced for the meeting, i.e., "The Currant Bud-mite: Its History and the Various Suggested Remedies," by Mr. Robert Newstead, A.L.S., of the Grosvenor Museum, Chester. The lecturer, in introducing the subject, said the first record of the bud-mite was in 1870. The number of mites in one bud is about 3,000; the lecturer had counted 2,748. Their method of progression is by crawling, leaping, or attaching themselves to moving bodies, such as the fruit gatherers. The mite is extremely minute; it takes about 150 placing them end to end to make an inch. A greater number of eggs are found in March than at any other time of the year, and in June the least number. At this season they are found climbing the young growths and settling on the back of the young leaves before entering the newly-formed buds. Among the best-known remedies that have been used are paraffin, sulphur, naphtha, turpentine, carbolic acid, &c. The lecturer recommended where planting in quantity was contemplated they should be divided by some other plants. Various interesting details were given by those present, and the lecture was enhanced in interest by examples being shown under the microscope. The thanks of the meeting were heartily accorded to Mr. Newstead for his interesting and valuable lecture.

ROYAL SCOTTISH ARBORICULTURAL SOCIETY.

THE annual meeting of the Royal Scottish Arboricultural Society was held in the Goolld Hall, Edinburgh, on the 10th ult., when there was a large attendance of the members, presided over by Mr. W. Stewart Fotheringham of Muthilly. Professor Augustine E. Henry of the National Forest School, Nancy, was elected an honorary member of the society. The report of the council was one of the most satisfactory ever submitted to the society. It showed continued additions to the membership, which now stands at 1,075, an addition of 59, and is composed of: Honorary members, 18; honorary associates, 7; life members, 266; and ordinary members, 784. The report gave details of the steps taken by the council to promote forestry by urging upon the Government the necessity of establishing a demonstration area and example plots, and in laying suggested areas before the Government departments. None of these had yet been adopted, and the council were still on the outlook for suitable places. After a few remarks upon various matters in connexion with the report, its adoption was agreed to. Mr. Methven, the treasurer, submitted an abstract of the accounts, which showed a balance at the credit of capital account of £1,284 10s. 5d., with a similar balance on revenue account of £304 4s. 2d., less the cost of the 1904 transactions. The office-bearers were elected, Mr. Stewart Fotheringham of Muthilly being re-elected president.

A valuable address on "Japanese and North American Larch and Other Trees from those Countries likely to be useful as British Forest Trees" was delivered by Mr. H. J. Elwes, Colesbourne. Mr. Elwes was generally of opinion that few of the Japanese conifers had any special qualities which would make them useful to Scottish foresters. The lecture was very instructive, and was illustrated with a series of slides. In the evening the members dined in the North British Station Hotel, the president in the chair. There was a large attendance, and the speeches were excellent. The toast of the evening, "The Royal Scottish Arboricultural Society," was proposed by Professor Rankine in an able speech, in the course of which he referred to the old Scottish statutes for the preservation of forests, and to these he traced the foundation of the society, the effects of the legislation on the subject having been *nil*. The chairman made a suitable reply. Mr. J. W. M'Hattie replied for the horticultural associations included in the toast of "Kindred Societies," proposed by Mr. A. Slater; while among other horticulturists who spoke was Mr. John Methven, who proposed "The Lord Provost, Magistrates, and Council of Edinburgh."

READING AND DISTRICT GARDENERS' SOCIETY.

AMONG the many gardeners' societies now established throughout the country that at Reading holds high place. The past year was started with a membership of 250, and, although several members have ceased their connection with the association, chiefly through removal from the district, yet at the close of the year the number was 263. The annual general meeting was held in the club room, the Old Abbey Restaurant, on the 11th ult.,

the president, Mr. Leonard Sutton, presiding over a large attendance of members. The annual report and balance sheet for 1903 were read, adopted, and ordered to be printed and circulated. The various officers and committee for the year were elected. Meetings have been held during each month of the year, with the exception of May, and were largely attended, with an average attendance of 100. Excellent exhibits of flowers, fruit, and vegetables were made from time to time.

At the usual fortnightly meeting of the above association Mr. W. J. Townsend presided over a very large attendance of members. The subject for the evening was one that appealed more or less to all connected with gardening, viz., "The Raising of Flowers from Seeds." This was introduced in a very capable way by Mr. T. Neve of Sindlesham House Gardens. Many flowers were shown to illustrate his remarks. Many of the points touched gave rise to criticisms, and a good discussion took place, sustained by Messrs. Townsend, D. Dore, Exler, Burditt, E. J. Dore, Powell, Stanton, Harris, Turner, Tunbridge, Cox, Alexander, and Winsor. There were two good exhibits. Mr. W. J. Townsend of Sandhurst Lodge Gardens staged some beautiful plants of *Primula obconica* (carrying some highly coloured flowers), *Cyclamen*, and *Hippeastrum*; Mr. A. J. Booker, Coley Park Gardens, two dishes of Annie Elizabeth Apples. The fruits were of good size, beautifully coloured, and in a firm, sound condition.

PROGRAMME OF MEETINGS IN 1905.

March 13: "Gourds and their Place in the Garden," by Mr. J. W. Odell, The Grove, Stanmore, illustrated with a series of limelight views. March 27: "Winter-flowering Plants," by Mr. J. A. Hall, The Gardens, Shiplake Court. April 10: "The Narcissus," by the Rev. Canon Fowler, M.A., D.Sc., F.L.S., Earley Vicarage. April 17: "Early Forcing of Vines, Peaches, and Strawberries," by Mr. H. Luckhurst, The Gardens, Thamesfield, Henley-on-Thames. N.B.—April 17 will be "Hospital" night, when bunches of cut flowers are solicited. These will be sent to the Royal Berkshire Hospital after the meeting.

TORQUAY DISTRICT GARDENERS' ASSOCIATION.

THE spring show will be held on Thursday, March 30, and the Chrysanthemum show on Thursday, November 2.

ALLOA AND DISTRICT GARDENERS' SOCIETY.

MEMBERS of this society had a very enjoyable dance in the Museum Hall on the 17th ult., when, in answer to the efforts of the committee, a large number of friends gathered for the occasion; there were more than seventy present. A long and interesting programme was gone through. Messrs. Little and Miller acted as M.C.'s. During the evening Messrs. Cuthell, Mackey, Grieve, and Ralph enlivened the proceedings with vocal contributions. Altogether the evening was very enjoyable and successful. H. H. C.

NORTH OF SCOTLAND VEGETABLE AND FRUIT ASSOCIATION.

THE annual meeting was held in the Town Hall, Inverurie, on the 14th ult., the chair being occupied by Treasurer Low. The report of the secretary and treasurer was of a satisfactory character, there being a balance of £26 4s. 9d. to the credit of the association. Office-bearers were appointed, but as the secretary did not desire reappointment, a committee was appointed to arrange for the filling up of the vacancy. On account of the success of the two days' show last year, it was agreed to continue this arrangement this year, the dates fixed being November 3 and 4.

BRIGHTON AND SUSSEX HORTICULTURAL SOCIETY.

A MEETING took place at the Imperial Hotel, Brighton, on the 16th ult., Mr. G. Miles presiding. An excellent paper was read by Mr. H. Goldsmith on "Plants for Conservatory Decoration," which was followed by a very interesting discussion, and a hearty vote of thanks passed to the reader. There were competitions for Primulas and Cyclamens, in the latter class the first prize being secured by Mr. W. Manton for two grand plants, each carrying upwards of 150 blooms. Primulas were not quite so good, still very fair specimens were shown. Messrs. H. and J. Elliott, Courtbushes Nursery, Hurstpierpoint, exhibited their new Tree Carnation H. Elliott, to which a first-class certificate was unanimously awarded. The chairman said the bloom of the variety before them appeared to him to possess all the good points which could be desired in a model winter-flowering Carnation—large size (3½ inches in diameter), vividly bright colour, full, but not overcrowded with petals, and of such a good shape that there was no tendency to burst the calyx, a long stem, and a vigorous habit. He proposed a vote of thanks to Mr. Elliott for bringing it before them. A pleasant meeting concluded with a vote of thanks to the chairman.

ANNUAL REPORT.

In submitting the balance sheet for the past year, the committee have to report a loss of £56 6s. 11d. on the year's working. This is very much to be deplored, considering the three very fine exhibitions given by the society. The weather, especially during the summer show, was against good attendance, and the receipts suffered accordingly; but it was noticed generally during the three shows a conspicuous lack of interest was very apparent on the part of the public. On the other hand, the committee desire to thank the president, vice-presidents, and subscribers, for their valuable support and interest, without which it will be impossible for the society to carry on the good work of so many years.

It is gratifying to note the steady increase in the number of ordinary members, whose interest in the society is its mainstay, and the committee hope these numbers may be still further increased. It will thus be observed that the society depends on further subscriptions, and a better attendance on the part of the general public.

BATH AND DISTRICT GARDENERS' ASSOCIATION.

To the other schemes which the committee of the Bath and District Gardeners' Mutual Improvement Association have promoted to encourage intellectual and social intercourse among the members was added recently a dinner and entertainment, over which the president, Mr. R. B. Cater, presided. Among those present were Messrs. W. F. Cooling (chairman of committee), J. Wilson, G. Butcher, S. W. Simms, C. F. Langdon, J. B. Blackmore, A. A. Walters, E. A. Walters, F. Nash, R. W. Rogerson (hon. secretary), J. Milburn (treasurer), A. E. Marshall (assistant secretary), and Rich. Numerous speeches were made, and a most enjoyable evening spent.

CHESTER PAXTON SOCIETY.

THE annual exhibition of fruits and Chrysanthemums organised by this society will be held in the Town Hall, Chester, on Wednesday and Thursday, November 15 and 16 next. An excellent schedule has been arranged by Mr. G. P. Miln, the hon. secretary, and we have no doubt a good display will result.

BATH GARDENERS' SOCIETY.

THE fortnightly meeting of this society was held on Monday, the 13th ult., at the Foresters' Hall. There was a large attendance, Mr. T. Parrott (chairman) presiding. The exhibition was very satisfactory, the Primulas, which formed the subject of discussion, being the feature. The show of Hyacinths was very fine, some handsome white varieties being staged. The rules of the sick benefit society were read and approved. The chairman announced that Miss Burningham of Widcombe Hill had presented about fifty volumes of books on gardening, several of which were for inspection on the table (applause). Three other donors had given one or more books. Speaking of the Chrysanthemum show in November, Mr. Parrott said that Miss Burningham had promised £5 towards the guarantee fund, in addition to special prizes. Many other gentlemen, including such well-known nurserymen as Messrs. Sutton and Sons and Messrs. J. Carter and Co., had promised support, either as guarantors or donors of special prizes at the show. A vote of thanks to Miss Burningham was carried, her election as a life member being proposed by Mr. Hayes, seconded by Mr. Sparey, and carried. Fourteen new members and vice-presidents were elected, the latter including Colonel Wyndham Murray. This brings the total to 140. The secretary opened the discussion on Primulas, and an interesting debate ensued. Alpine kinds were briefly considered. The chairman announced that the committee had decided to offer prizes to under-gardeners for an essay on watering, the papers to be read at the next meeting. This was heartily approved. Mr. Sparey was appointed librarian with care of the new books.

EAST ANGLIAN HORTICULTURAL CLUB.

THE February meeting of the East Anglian Horticultural Club was given over to the discussion of the British Gardeners' Association. Mr. George Gordon, V.M.H., chairman of the committee of that body, came down as delegate, and he had a gathering of nearly 100 of the prominent gardeners and horticulturists of the district. Mr. Gordon fully and clearly explained the object of the association, and in conclusion said they had almost secured the desired first 500 members, and had established nearly thirty branches. Before the discussion Mr. W. L. Wallis, the secretary of the club, wished it to be understood that as a club they did not propose the formation of a branch. Mr. J. Fowley, the president, in opening the discussion, expressed himself as not altogether in favour of the association. Mr. H. B. Dobbie (gardener to E. Caley, Esq., Thorpe) said gardeners were not so badly off as was pointed out, and by forming a branch he thought they would be checking rather than improving the craft. Mr. T. B. Field (gardener to Baroness Berners, Ashwell-thorpe Hall) said the rules were arbitrary and preposterous. He also contended that the committee itself were not men who depended on the garden proper as their livelihood. As for this district, he contended that gardeners were fairly well off, and that employers paid them all they could afford. Mr. J. C. Abel, gardener to Miss L. Bignold, Norwich, could not see much to be gained from the association. Mr. J. Clayton (of Messrs. Daniels Brothers, Limited) said the wage question was the rock upon which the project would strand.

The meeting concluded with the passing of a resolution "That the members having heard the delegate will consider the advisability of forming a branch at some future meeting."

HOLYWOOD, COUNTY DOWN, HORTICULTURAL SOCIETY.

AT the committee meeting held recently to revise the schedule, Mr. Walter Smyth in the chair, it was decided to hold the show on July 25 next. The entries for last year doubled those of the previous year, so that it is now necessary to hold this show in marquees in the open air. Mr. J. R. Allan, the hon. secretary, stated that some exhibits could not be staged last year owing to want of space.

ROYAL HORTICULTURAL SOCIETY.

THERE was a very interesting, though not a very large display of plants, flowers, and fruit at the Horticultural Hall in Vincent Square on Tuesday last. Hardy flowers, forced shrubs, and greenhouse plants were most largely shown. To new Orchids the Orchid committee awarded one first-class certificate and one award of merit. The floral committee gave three awards of merit to new plants. All these are described below.

ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, Henry Little, Francis Wellesley, James Douglas, Richard Thwaites, Walter Cobb, Jeremiah Colman, T. W. Bond, G. F. Moore, H. J. Chapman, H. A. Tracy, W. H. White, H. G. Morris, A. McBean, F. W. Ashton, W. H. Young, W. Boxall, J. W. Odell, Norman C. Cookson, R. Brooman White, J. Wilson Potter, de B. Crawshaw, W. A. Binney, Harry J. Veitch, H. T. Pitt, and H. Ballantine.

A collection of photographs, coloured by hand, of various Orchids was shown by Mr. H. J. Chapman, gardener to N. C. Cookson, Esq., Wylam-on-Tyne. They were very beautifully coloured, and, curiously no trace of the brush was visible. They looked as though photographed in colour. Single flowers as well as groups of plants were shown. Among the varieties of *Odontoglossum crispum* were *gracileanum*, *Harold*, *Britannia*, *Persimmon*, *Cooksoniae*, *Raymond Crawshaw*, and *Sibyl*; *Cattleya labiata* in variety and *C. Mossiae*, *Cymbidium Sandere*, and numerous hybrid *Cypripediums* were also represented. Silver Flora medal and vote of thanks.

Messrs. Sander and Sons, St. Albans, exhibited *Cypripedium Prince Humbert* (*mastersonianum* × *niveum*) and several hybrid *Odontoglossums* and *Cypripediums*.

The *Dendrobiums* from Messrs. James Cypher and Sons, Cheltenham, included some fine sorts, e.g., *nobile nobiliss*, *n. album*, *n. elegans*, *leechianum*, *Purity*, *murrinhianum*, *Amesiae*, and *cheltenhamense*. *Cymbidium eburneum* was also well shown. Silver Banksian medal.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited a small group of Orchids that included *Lælio-Cattleya Violetta splendens*, *L. C. Antimachus carnea*, *L. Pacuvia albida*, *L. splendens*, *L. flava*, *Dendrobium scylla*, *D. atro-violaceum*, *Phalenopsis Ariadne*, *Phala-Calanthe Sedeni*, and others. Silver Banksian medal.

A cultural commendation was given to a large, finely-flowered plant of *Ada aurantiaca*, shown by Captain G. L. Holford, Westonbirt, Tebury (Orchid grower, Mr. Alexander).

NEW ORCHIDS.

Lycaste Skinneri alba var. *magnifica*.—A first-class certificate was given to this very fine broad-petalled form of *Lycaste Skinneri* shown by Sir Frederick Wigan, Bart., East Sheen (Orchid grower, Mr. W. H. Young), and by Messrs. Hugh Low and Co., Epsford.

Odontoglossum loochistense var. *tracyanum*.—A flower of somewhat loose form, blotched with chocolate-brown upon a yellow ground in the sepals, and a white ground in the petals, which have a yellow margin; the broad lip is also blotched with chocolate-brown on a white ground. From Mr. H. A. Tracy, Twickenham. Award of merit.

Lælia Iona nigricans.—A very handsome flower, the petals suffused with rich rose-purple, the sepals paler, and the lip an intense purple, almost black in the throat. From F. Wellesley, Esq., Westfield, Woking. Award of merit.

Among various other Orchids shown was a plant of *Odontoglossum crispum veitchianum* bearing thirteen flowers. This plant had not been publicly exhibited for twenty-one years. From Baron Sir Henry Schröder, The Dell, Egham (gardener, Mr. Ballantine).

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. Joseph Cheal (chairman), Messrs. T. W. Bates, James Gibson, S. Mortimer, Alex. Dean, George Kelf, Horace J. Wright, Henry Parr, F. Q. Lane, Edwin Beckett, Charles Foster, G. Reynolds, J. Jacques, Owen Thomas, and W. Poupert.

Mr. John Watkins, Pomona Nurseries, Withington, Hereford, exhibited a collection of Apples remarkable for their rich colouring. Such as *Hoary Morning*, *Newton Wonder*, *Scotch Bridget*, *New Bess Pool*, *De Dantzig à Côtes*, *Barnack Beauty*, *Walhurst Pippin*, and *Gascogne's Scarlet Seedling* were included. Silver Knightian medal.

Several Apples were shown before the fruit committee of the Royal Horticultural Society, but no awards were made.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. C. T. Drury, H. B. May, James Hudson, J. Green, R. Hooper Pearson, John Jennings, J. F. McLeod, C. R. Fielder, Charles Dixon, Charles Jefferies, George Gordon, Charles E. Pearson, R. C. Notcutt, E. H. Jenkins, W. J. James, George Paul, H. J. Cutbush, W. Howe, R. W. Wallace, E. T. Cook, J. Nix, and G. Reuthe.

Messrs. W. Cutbush and Sons, Highgate, filled a table with a choice arrangement of alpine and other early hardy flowers. There were masses of *Shortia galacifolia*, *Androsace carnea*, *Anemone vernalis*, *A. Pulsatilla* and its rare white variety, *Saxifraga burseriana* major, *S. oppositifolia* in variety, *Daphne Dauphina* (very fragrant), *Iris Acheroni*, *Stylophorum diphyllum* with golden flowers, spreading masses of *Epigaea repens*, *Soldanelia alpina*, *Hepaticas*, choice alpine flowering and other shrubs were also well shown. Silver-gilt Banksian medal.

A very handsome flowering group of *Eupatorium petiolare* was shown by Messrs. Cannell and Sons, Swanley; the plants were 3 feet high, profusely and freely flowering.

Mr. L. E. Russell, Richmond, staged on the floor a small group of *Azaleas* of the mollis section in company with

Staphylea colchica, *Amygdalus sanguinea* fl.-pl., *Forsythia*, *Lilacs*, and other things. Bronze Banksian medal.

The Misses Hopkins, Mere, Knutsford, set up a pretty, if small, group of *Primroses*, *Squills*, early *Saxifragas*, *Anemones*, and the like, with bushes of the white and red *Mezerion* in flower. Vote of thanks.

Mr. G. Reuthe, Keston, Kent, also staged alpine in which *Saxifragas* were abundant. We noted such beautiful forms as *Grisebachii*, *Salomoni*, *burseriana*, *longifolia*, *rochelliana*, and others. *Iris reticulata*, *Hepaticas*, *Leucojum vernum*, *Snowdrops*, and many species of *Crocus*. Bronze Flora medal.

A small group of *Hippeastrums* was shown by G. Haslett, Esq., Woodside House, Wimbledon.

Very interesting were the *Narcissus Bulbocodium* var. *monophyllum* from Miss Willmott, V.M.H., Warley. These were collected forms, and represented quite a number of varieties, some of the blossoms of cupped form, and others widely expanded. One cupped form more nearly resembled the yellow *citrina*. Bronze Banksian medal.

Messrs. Sutton and Sons, Reading, filled a large table with their magnificent *Cinerarias*, in which pink and blue shades predominated. None of the varieties were named, but the pink forms varied from ruby to pale pink, with many intermediate shades. The blue shades were most conspicuous, many of the flowers exceedingly rich and intense in colouring, and almost reaching perfection in form. A perfectly compact and bushy growth and large flowers were general. Silver-gilt Flora medal.

Alpines and allied things were shown by Messrs. T. S. Waie, Limited, Feltham. The plants were chiefly in pans, and we noted large specimens of *Saxifraga apiculata*, *Anemone blanda*, *Lithospermum rosmarinifolium*, hardy *Cyclamens*, *Hepaticas*, *Primula Sieboldi* in variety, a lovely lot of *Saxifraga burseriana* and *S. Salomoni* in full flower, besides many other things. Silver-gilt Flora medal.

A small group of a white Chinese *Primula* was shown by Messrs. James Carter and Co., High Holborn.

Messrs. Barr and Sons, Covent Garden, had a pretty group of hardy plants, in which *Chionodoxa sardensis*, *Iris stylosa*, *Snowdrops*, *Hepaticas*, *Adonis amurensis* (very beautiful), *Hepatica angulosa alba*, *Lenten Roses* in variety, and *Iris tuberosa* (very quaint in black and green) were among the more notable. Bronze Flora medal.

Messrs. J. Laing and Sons, Forest Hill, had a large group of *Begonia semperforens gigantea carinata*, a showy plant with red flower-buds that are conspicuous in the unexpanded stage.

Forced flowering shrubs in variety were shown by Messrs. William Cutbush and Sons, Highgate, and included *Jasmines*, *Laburnums*, *Magnolias*, *Wisterias*, *Spiraea confusa*, and others.

Probably one of the grandest exhibits of forced shrubs ever staged at one of these meetings was on this occasion set up by Messrs. R. and G. Cuthbert, Southgate Nurseries, Middlesex. The chief feature was a noble lot of *Magnolia Lenoii*, the rich chocolate-purple flower-buds showing boldly above the tender green of *Acer* leafage. In the groundwork *Azalea mollis* was largely used, and in their great variety made a most sumptuous array of colour. *Laburnum*, *Wistaria*, *Prunuses*, and other things were freely employed. Gold medal.

Messrs. Veitch and Sons, Limited, Chelsea, had fine groups of *Primula Kewensis*, *Rhododendron veitchianum*, *Cheiranthus Kewensis*, *Camellia reticulata*, *Corylopsis spicata*, *Atragea austriaca*, and other plants. Silver Banksian medal.

A scented-leaved *Pelargonium Clorinda*, raised by Dr. Bonavia, was exhibited by Messrs. Cannell and Sons. The flowers are rosy red, and abundantly produced in small compact trusses.

Messrs. Paul and Sons, The Old Nurseries, Cheshunt, staged a good lot of home-grown *Lilacs* in flower, also *Roses* and *Clematises* in pots, the latter very beautiful in their varying shades. A flowering plant of *Lobelia nicotianifolia* was also in this group. Vote of thanks.

Hardy *Cyclamen* with *Primroses* and *Shortia galacifolia* formed the chief of a pretty exhibit from Messrs. George Jackson and Son, Woking; *Erica carnea* in tufts was very pleasing, and equally so were the forms of *Anemone blanda*. Vote of thanks.

A very fine lot of *Rhododendron grande*, from Sikkim, was shown in flower by F. D. Goodman, Esq., South Lodge, Horsham. The huge fruses of bell-shaped flowers are cream-coloured, and are produced abundantly at the tips of the shoots. The foliage, too, is very handsome. Silver Banksian medal.

Crocuses, *Muscari*, early *Irises*, *Snowdrops*, *Hepaticas*, and the like were freely shown by Messrs. R. Wallace and Co., Colchester. *Saxifraga burseriana* major was exceptionally good and well flowered. *Colchicum crociflorum* was an interesting plant in this exhibit. Bronze Banksian medal.

A small but beautiful gathering of *Roses* came from Mr. G. Mount, Canterbury, the varieties were Mrs. Sharman Crawford, Mrs. W. J. Grant, and Mrs. J. Laing, of each of which good flowers were staged. Silver Banksian medal.

A mixed exhibit of flowering plants from Mr. H. B. May, Edmonton, contained *Eranthemum pulchellum*, *Primula Kewensis*, a beautiful lot of *Clematises* in flower, *Boronicas*, and many choice Ferns. Silver Banksian medal.

Lachenalias were shown by Mr. F. W. Moore, Glasnevin, and by Mr. J. T. Bennett-Poe, Cheshunt. Those from Mr. Moore were cut flowers; Mr. Bennett-Poe sent plants in pots. In both instances the same kinds were shown, and it was at a glance evident how much these things lose when cut and packed in boxes. The pot-grown plants were exceedingly ornamental.

A botanical certificate and a cultural commendation were awarded to *Rosa gigantea*. This remarkable species was shown in flower by the Duke of Northumberland, Albury Park (gardener, Mr. W. C. Leach). The buds are

creamy buff, long, and tapering, the expanded single flowers pure white and nearly 4 inches across. The species is very rarely seen in flower in this country, not being sufficiently hardy to endure the English winter in the open.

NEW PLANTS.

Lachenalia Brilliant.—A very handsome variety, with mottled purple stems and large, widely-expanded flowers of golden yellow tinged with red. A sturdy grower and free flowering. From Mr. J. T. Bennett-Poe, Cheshunt, and Mr. F. W. Moore, Glasnevin. Award of merit.

Lachenalia Jean Roger.—Tall growing, with yellow and green scarlet-tipped spikes of flowers. This is very showy. From Mr. J. T. Bennett-Poe, Cheshunt, and Mr. F. W. Moore, Glasnevin. Award of merit.

FLORAL COMMITTEE (FEBRUARY 14).

Carex Vilmorini.—A neat growing and dwarf plant with striated leafage. The latter is very narrow and long, and, gracefully arching over the side of the pots, has a most elegant appearance. In the tuft the plant rises but 6 inches or 8 inches before the leaves gracefully droop. We are not sure to what type the plant belongs, but in general appearance and so far as may be gathered from leaves alone it may be likened to a dwarf and narrow-leaved form of *C. acutifolia*. Small plants grown in 3-inch pots would make graceful objects for the decorator. From Messrs. Cannell and Sons, Swanley, Kent. Award of merit.

Primula His Majesty.—A large pure white semi-double form of *P. siueensis*, which, by reason of size, should find many admirers. Such strains usually come fairly true from seeds, and if well fixed the present form will prove an acquisition. From Messrs. Sutton and Sons, Reading. Award of merit.

Crocus chrysanthus variety.—A remarkably pretty and profuse flowering plant from Miss Willmott, V.M.H., Warley Place, Warley. The segments are roundish, ovate, the three outer ones heavily stained with bluish purple. The centre of the flower is stained with yellow, and generally the beauty of the flower is enhanced by the rich scarlet-orange of the pistil. It is very free-flowering, a single corm having eight buds and blossoms prominently in view, so that a small patch of it would be extremely effective. Award of merit.

Rose Prince de Bulgarie (H.T.).—Good winter-flowering *Roses* are by no means too plentiful, and we welcome so good a variety as the one under notice. It is not a novelty, having been introduced into cultivation in 1901, though we do not remember it previously as a winter-flowering kind. It is very beautiful, the long shapely buds, borne on strong stems, render it an ideal one for decoration. The colour is silvery flesh, delicately shading to soft flesh or palest pink in the centre. In all probability this flower would have more colour when grown in the open. From Messrs. Paul and Son, The Old Nurseries, Cheshunt. Award of merit.

BROUGHTY FERRY HORTICULTURAL ASSOCIATION.

A MEETING of this association was held on the 21st ult., when there was a good attendance, presided over by Mr. James Slater. An interesting exhibit from Mr. J. Bell, Corona House Gardens, which attracted much admiration, was a magnificent specimen of *Dendrobium nobile*. The paper of the evening was by Mr. Alexander M. Rae, Balnumble Gardens, who gave most concise and practical advice on laying out, levelling, draining, planting, &c., of gardens.

NORTH OF FIFE HORTICULTURAL SOCIETY.

THE annual general meeting of this society was held at Luthrie recently, Mr. Thomas Barrie, president, in the chair. The annual financial report, which showed a small balance in favour of the society, was considered a satisfactory one, and was adopted by the meeting. The following office-bearers were appointed, in addition to the committee of managers: President, Mr. Rintoul, Balhelvie; vice-president, Rev. T. Crichton, Gaudry; secretary, Mr. Dingwall; treasurer, Mr. Miller. It is intended to hold this year's show on August 5.

CARDIFF GARDENERS' ASSOCIATION.

THE usual fortnightly meeting was held at the Sandringham Hotel on the 21st ult., Mr. T. Clarke in the chair. Mr. Thomas Malpass (hon. treasurer) delivered an instructive lecture on "Sweet Peas," and the discussion was of an interesting nature, so popular has the flower become in the district, and the best thanks of the meeting were accorded the lecturer, which terminated the proceedings. On Wednesday (the following evening) about fifty members paid a visit to the Cardiff Electrical Power Station, and were met there by Councillor J. W. Courts (chairman of the Cardiff Tramways) and Mr. Ellis (electrical engineer and manager), who conducted the party through the various departments. The huge boilers and engines were the centre of attraction, and many hints were given to the members upon the working of the various parts. The visit was an educational treat. On leaving, the chairman of the association proposed that the best thanks of the members be accorded the officials for their kindness in allowing the members to visit such a place. J. JULIAN.

CROYDON AND DISTRICT HORTICULTURAL SOCIETY.

MR. T. W. BRISCOE, of the Royal Gardens, Kew, read his first prize essay on "Pruning and Training Hardy Fruit Trees." It will be remembered this society offered to its members prizes for essays during last year, and when one listened to Mr. Briscoe's remarks, the unanimous opinion

was that he had dealt with his subject in a very practical and exhaustive manner. He advocated the best method to prune and train each particular fruit in the different systems, also the best time when these operations should be accomplished. It was to be regretted, he said, that due care and forethought were not always given to this part of the gardener's work. A good discussion amongst the members followed the reading of the paper, and each one bore out the mode of culture advised by the essayist. Mr. B. Acocq, Shirley Hyatt Gardens, exhibited well-grown *Primula obconica*, and from Mr. F. Octoby, Coombe Lodge Gardens, came a bundle of forced Rhubarb, all of which were much appreciated and received the meeting's vote of thanks. A unanimous vote of thanks was accorded Mr. Briscoe for reading his essay.

BRISTOL AND DISTRICT GARDENERS' MUTUAL IMPROVEMENT ASSOCIATION.

A WELL-ATTENDED meeting of this association was held at St. John's Rooms, Redlands, recently. Mr. P. Garnish occupied the chair and introduced the lecturer, Mr. Farmer, from the Cardiff Gardeners' Association, who took for his subject "Vines." It need hardly be said the subject is a very popular one, and the lecturer's remarks, based as they were on his own practical experience, were eagerly listened to by a most attentive audience. Mr. Farmer, among many other items, showed how with ordinary care it was possible to have a cane with twelve to eighteen bunches of Grapes on it in about eighteen months from putting in the "eye." His practical and interesting lecture was much appreciated, and on the motion of Mr. J. C. House he was accorded the hearty thanks of the meeting. Prizes for an Orchid went to—first, Mr. W. Howell Davis (gardener, Mr. Curtis); second, Mr. T. F. C. May (gardener, Mr. Jennings). A certificate of merit was awarded to Mrs. A. Hall (gardener, Mr. Ware) for two pots of *Freessias*, also to Mr. Smith for an *Ocimum* concolor.

BOURNMOUTH AND DISTRICT GARDENERS' MUTUAL IMPROVEMENT ASSOCIATION.

AT the fortnightly meeting held at the Avenue Restaurant on Tuesday, the 21st ult., the subject for discussion was the Cyclamen, which was opened by Mr. Pearce, gardener at Astley Firs, who has long been recognised as a successful grower of this useful winter plant. An animated discussion followed the opener's remarks, and much information was thereby gained. Several well-grown plants were exhibited by Mr. Pearce, also by Mr. Nippard of Ashton Court, and a vote of thanks was accorded them. Mr. D. C. Fyfe presided over the meeting, which was well attended.

PROGRAMME OF MEETINGS.

March 7—"How to Grow Japanese Chrysanthemums for Exhibition from a Small Grower's Point of View," by Mr. W. Palmer, Harrington Gardens, Branksome Park. March 21—"Some Injurious Insects," by Mr. E. Dumper, Hinton Admiral Gardens, Christchurch. April 4—"Slumbering Plants," by Mr. J. Kettle, Red House Gardens, Coife Mullen. April 18—Paper by Mr. A. King, Parkstone Nurseries. May 2—"Up-to-date Manuring," by Mr. F. W. E. Hrivell, F.L.S., F.R.H.S., Tonbridge, Kent. June 6—"Rhododendrons and Azaleas," by Mr. C. Nippard, Ashton Court Gardens, Branksome Park. July 4—Visit to Messrs. Watts and Sons' Nursery, Holdenhurst Road. Members to meet at the nursery at 7 p.m. prompt.

OBITUARY.

MR. JAMES WALKER.

By the death, on the 16th ult., of Mr. James Walker, High Street, Kirkcaldy, local horticulture has lost one of its leading amateurs. Mr. Walker, who was in his seventieth year, was a leading member of the Kirkcaldy Horticultural Society from its beginning until his death, and for many years one of its leading prize-winners. Mr. Walker was an ardent florist, and by his influence and example many were induced to undertake the cultivation of flowers and plants. He took part in several other public movements, and was considered one of the most estimable of the public men of the town.

LATE NOTES.

Honour for a gardener's son.—

The Belfast City Council have decided to place a full-length portrait of his Majesty the King in the new Town Hall now approaching completion. On Thursday last the King gave a sitting to the eminent artist Mr. Harold Speed, and he will give another during the present week. Mr. Harold Speed is the son of the late Mr. Edward Speed, a well-known gardener of Mallock Bath,

Derbyshire, who was a brother of the late Mr. Speed of Chatsworth. Many gardeners will be pleased to hear of the signal honour conferred on this distinguished artist.

United Horticultural Benefit Society.—The annual general meeting of this society will be held at the Caledonian Hotel, Adelphi Terrace, Strand, W.C., on Monday, the 13th inst., at 8 p.m. Mr. W. P. Wright will preside.

National Potato Society.—This society continues to make rapid strides. The new members up to February 16 numbered fifty, with two new affiliated societies. Mr. Walter P. Wright, Postling, Hythe, will forward all particulars post free. A substantial and varied prize list is being arranged for this year's shows. Messrs. Sutton and Sons have generously presented 14lb. of their Superlative Potato to the society for its various trial stations.

The Fruit Industry Committee.—The departmental committee appointed by Lord Ouslow to enquire into and report upon the fruit industry of Great Britain held sittings on the 21st to the 24th ult. The following members were present: Mr. A. S. T. Griffith-Boscawen, M.P. (chairman), Colonel Long, M.P., Mr. C. W. Radcliffe-Cooke, Mr. Monro, Mr. Hodge, Mr. Vinson, Dr. Somerville, Mr. P. Spencer Pickering, M.A., F.R.S., the Rev. W. Wilks, M.A., and Mr. Ernest Garney (secretary). The committee had under their consideration the draft report prepared by the chairman.

Winchmore Hill Horticultural Society.—The date of the summer show has been fixed for July 5.

Ipswich flower shows.—The dates of the shows at Ipswich are as follow: Daffodil show, Tuesday, April 18; summer show, Wednesday, July 5; Chrysanthemum show, Tuesday and Wednesday, November 7 and 8.—HERBERT E. ARCHER, *Secretary*.

NOTES FROM THE MARKETS.

COVENT GARDEN MARKET.

THERE is now a regular supply of good Roses; generally they sell well. Carnations are more plentiful, the American varieties continue to take the lead; prices vary and are inclined to go lower. Daffodils are very plentiful, some extra fine Golden Spur fetch 8s. or 9s. per dozen bunches, but 6s. is about the price for ordinary samples. Tulips are very plentiful, the finest doubles make from 1s. 6d. to 2s. per bunch, while ordinary singles do not go beyond 8s. per dozen bunches. *Lilium longiflorum* is likely to be very short for a time owing to several growers having suffered from the effects of the fog. No *Lilium auratum* are coming in just now. Lily of the Valley is not so plentiful. Callas sell well. Of pot plants there is little new. Some good Acacias are coming in. Azalea mollis in various soft tints make a good display. A. indica is also most prominent. Cinerarias, Genistas, and Cyclamen are all plentiful. The trade for hardy herbaceous plants and annuals was quite stopped by the cold.

In the fruit trade Grapes are steadily advancing in price, but this has the effect of reducing the quantities sold to a considerable extent. Plums, Peaches, and Pears are arriving from the Argentine Republic; and from the Cape Strawberries are now coming in, prices for the best have been as high as 16s. per lb., but a few days may make a considerable difference. There are a good many English Apples, but many of the samples are poor. The American Newtown Pippins have made record prices, going up to 55s. per barrel, and the best in cases from Oregon have gone up to 24s. There

is an abundant supply of Baldwins and other culinary sorts, and they are getting rather over ripe.

WHOLESALE PRICE LIST.

		FLOWERS.			
		s.	d.	s.	d.
Anemones	per dozen bunches	2	0	4	0
Azalea indica alba	"	3	0	5	0
" mollis	"	9	0	12	0
Bouvardia	"	6	0	8	0
Calla aethiopica	"	2	0	4	0
Camellias	"	2	0	3	0
Cattleyas	"	10	0	12	0
Carnations	bunches 18	0	30	0	0
" special American varieties	"	4	0	7	0
Cyclamen	bunches 6	0	8	0	0
Cypripedium insigne & others	"	2	6	3	6
Dendrobium nobile	"	2	0	3	0
Daffodils, yellow trumpet	bunches 3	0	6	0	0
" double	"	4	0	6	0
" princeps	"	4	0	6	0
Eucharis amazonica	"	2	0	3	0
Euphorbia jacquiniiflora	per bunch	2	0	3	0
Freesia refracta alba	per dozen bunches	2	6	3	6
Gardenias	"	4	0	6	0
Hyacinthus, Roman	"	6	0	8	0
Lilac, English forced	per bunch	3	0	4	0
" French	"	3	6	4	0
Lilium longiflorum	per bunch	4	0	5	0
" lancifolium album	"	2	0	2	6
" rubrum	"	2	0	2	6
Lily of the Valley	per dozen bunches	6	0	15	0
Lycaste Skinneri	"	3	0	4	0
Marguerites, white	"	3	0	4	0
" yellow	"	2	6	3	6
Myosotis	"	4	0	5	0
Narcissus, Paper-white	per dozen bunches	2	0	3	0
" Soleil d'Or	"	2	0	2	6
" Gloriosa	"	2	0	3	0
Odontoglossum crispum	"	2	6	3	0
Primula sinensis, dbl. white	bunches 6	0	8	0	0
Pelargonium (zonal), salmon	"	6	0	8	0
" dbl. selt.	"	6	0	9	0
Ranunculus	"	9	0	12	0
Roses (English)	"	3	0	8	0
" (French)	"	1	0	2	0
Snowdrops	"	1	0	2	0
Tuberose	"	0	6	0	8
" on stems	per bunch	1	6	2	0
Tulips	per dozen bunches	6	0	9	0
" special doubles	"	12	0	18	0
Violets, blue	"	1	0	2	6
" Parma	per bunch	3	6	5	0
Wallflowers	per dozen bunches	2	0	3	0

FRUIT.

Apples, English dessert	per sieve	4	0	12	0
" culinary	"	3	0	6	0
" American	per barrel	12	0	18	0
" Newtown Pippins	per case	20	0	24	0
Bananas, Jamaica	per bunch	8	0	15	0
" Canary Islands	"	8	0	14	0
Cob Nuts	per dozen lb.	5	0	6	0
Grapes, Alicante	per dozen lb.	18	0	30	0
" Gros Colmar	"	21	0	36	0
Lemons	per case	8	0	14	0
Oranges, Valencia	"	6	0	10	0
" Blood	"	8	0	9	0
" Jaffas	"	10	0	12	0
" Jamaicas	"	5	0	7	0
" Seville	"	6	0	12	0
Peaches (Cape)	per case of 18 to 20	6	0	8	0
Pears	per case	15	0	30	0
Pines, St. Michael's	each	2	6	5	0
Plums (Cape)	per case of 18 to 24	5	0	10	0
Strawberries	per lb.	10	0	16	0

GARDENING APPOINTMENTS.

MR. JAMES BROWN, for the past two years gardener at Orford House, near Market Rasen, Lincs, has been appointed gardener to Sir George S. Mackenzie, K.C.M.G., at Tempsford Hall, near Sandy, Bedfordshire.

MR. CHARLES FORD, gardener to Captain A. H. Thurburn, Hales Hall, Market Drayton, as gardener to the same gentleman, at Cransby Hall, Kettering.

MR. A. T. PARKETT, for the past two and a half years head gardener to Philip Secretan, Esq., Slaughtam Park, Crawley, Sussex, has been appointed head gardener to Captain the Hon. and Lady Edith King-Noel, Horsley Towers, Leatherhead, Surrey. He entered on his duties on the 20th ult.

PUBLICATIONS RECEIVED.

Liste des plantes vivantes cultivées du jardin botanique de l'état à Bruxelles, et offertes en échange aux autres jardins botaniques; Bulletin of the Department of Agriculture of Jamaica; Bulletin de la Fédération des sociétés horticoles de Belgique; Le Chrysanthème; Bulletin d'arboriculture; Bulletino della R. Socie. a Toscana di orticoltura; Report of Field Experiments in Staffordshire and Shropshire, and at the Harper-Adams Agricultural College, Newport, Salop; and the American Journal of Science.

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THE GARDEN

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GARDEN PEAS.

FEW vegetables are held in higher esteem than the Pea. Though introduced into this country somewhere about 400 years ago, it is only during the past forty or fifty years that its true value has been emphasised and its culture better understood. Instead of a few rows cultivated here and there in the larger gardens, we now see acres upon acres of some of the best land devoted to their growth. Thanks to the large number of varieties, most of them being great improvements on the older types, we are now able with a reasonable amount of care and attention to produce Peas in the open at least five months out of the twelve. Since that great break which was given to us when Telephone, Telegraph, Stratagem, and Pride of the Market varieties were introduced by Messrs. Carter and Co. of High Holborn, a steady improvement has been going on, both in appearance, quality, and cropping propensities, as well as varieties that are well adapted for producing Peas alike quite early, midseason, and late. What always strikes us as somewhat strange is why people will continue to grow year after year varieties which, in our opinion, have long been out of date and superseded by others in every way superior. We suppose—as with old customs, so it is with varieties of vegetables—they die hard.

PREPARATION OF THE SOIL.—Few crops pay for deep cultivation and liberal manuring more than this; in fact, it is practically a waste of time and trouble to attempt to grow successfully good crops of good varieties unless the land be liberally treated in this respect. This should be done during the winter months—the earlier the better on light sandy soil, and February and March for that of a more retentive nature. Land which has been occupied before with Celery is unquestionably an ideal spot, which should be trenched to a depth of about 3 feet, adding a thorough dressing of good farmyard manure, the longest of which should be placed in the bottom of the trench, and the shorter in another layer midway. Add a good surface-dressing of burnt garden refuse and fresh soot as the work proceeds. The surface should, of course, be left in a rough state till the time of planting. For very early crops a southern border should, if possible, be selected, and dealt with in the same way. For very late supplies choose a sunny but fairly open position, and these should always be sown in trenches, which should be prepared much in the same way as for Celery. Where it is not possible to till and manure the land, it will pay to provide trenches for all plantings.

SOWING THE SEED.—The old method of doing this in the autumn is not wise. It is

far better to defer doing so until the spring, and though on the surface it may appear that raising the plants in boxes and planting them out incurs extra labour and trouble, it is really not so, and we have always found the plants crop much quicker and better by transplanting. At the same time, they are more under control against inclement weather, birds, rats, mice, slugs, and other enemies. We make our first sowing towards the end of January, and successional ones at intervals of ten days till the first week in April. Ordinary-sized horticultural boxes should be used, namely, about 2 feet long, 1 foot wide, and 4½ inches deep. These can be readily made by any handy man. They should be well drained, and a little old Mushroom bed manure placed over the crocks, and a suitable compost is two parts loam, one part leaf-soil, and one part decayed horse manure, which should be thoroughly mixed and made moderately firm when placed in the boxes. Cover to the depth of 1 inch and give a good watering in. A cool orchard house or even a cold frame will be much better than starting them in a strong heat. The seed should be allowed to germinate gently and as naturally as possible. The plants should be thoroughly hardened off in the open before being put out. Choose as far as possible a growing day for the purpose. Allow plenty of room both between the plants and the rows. We venture to say there are more Peas spoilt by sowing too thickly and allowing them to become overcrowded than from any other cause. Plant firmly, draw up a little soil to the growths, stake and net them at the same time. This will afford the necessary protection against weather and secure them against the attacks of sparrows, which have a particular liking for the young growths in the early season of the year. The planting of these should always be done when about 3 inches in height, and we advise the first sowing in the open ground on or about the same date when the last sowing is made in boxes. The seed should be distributed evenly all along the drills or trenches, just as thick again as it is intended for them to remain, and thin to the proper distance by drawing out the surplus ones when about 2 inches high. Mouse-traps should always be temptingly baited and placed along the rows, and the seeds protected with ordinary Pea-guards.

WATERING.—The Pea is a moisture-loving plant. The roots should be kept well watered and varied with liquid manure. Too much can hardly be given in dry seasons, especially on light, gravelly soils, and to induce the earlier batches especially to mature quickly after a reasonable amount of flowers are produced the points of the growths should be picked out, which will make at least a week's difference to their filling.

MULCHING.—During spells of dry weather, and especially on light land, we regard this of the utmost importance, and we know of nothing better than long stable litter. The whole of the ground should be covered between the rows, as it conserves the moisture and keeps the roots cool.

STAKING.—Nothing is better for supporting the growths of Peas than good ordinary Pea-sticks; Hazel for choice. A certain amount of practice is required to render this efficient and pleasing to the eye. The bottoms should be sharpened and thrust well into the ground to hold them firmly. The sticks should be put in quite straight, and the tops neatly taken off and stuck in between the stakes to help to give the young plants a start. In addition to this, the taller-growing varieties will often need lines of stout tarred cord stretched along the sunny side of the rows when the haulm is heavily laden with pods.

GROWING FOR EXHIBITION.—When it is one's ambition to enter into competition, a large amount of care and attention must be bestowed on Peas to be successful. Ample distance must be insisted on between the plants, and the leading growths stopped after a reasonable quantity of pods are formed. All lateral growths must be removed and only the most promising pods retained. Tie these up carefully in such a position that the wind cannot blow about and damage them. The plants should be liberally fed, and in no case allowed to suffer for want of moisture at the roots, and on hot, dry days the growths should be damped over in the early evening with perfectly clean tepid water. Each pod should be thoroughly well filled, without any tendency of appearing old, and when staged should not be rubbed. Only varieties of good appearance should be grown. We have always held, and are still convinced, that adjudicators in making awards should take into consideration not only the appearance of well-filled specimens, but the quality of the varieties also.

VARIETIES TO GROW.—To make an attempt to enumerate all the varieties worth growing would be quite impossible, and there are many varieties which do admirably in some localities, but fail to a great extent in others. We are not much in favour of the very dwarf varieties, as the yield is very small compared with the taller ones. But, at the same time, they have their value, and in small gardens and on narrow sunny borders it is always well to grow some. Veitch's Chelsea Gem, Webb's Little Marvel, and American Wonder are all first-rate in their way. Carter's Daisy, though not so dwarf as the preceding, is a splendid Pea in every way; a very valuable addition. Reading Giant, Early Morn, and Edwin Beckett are all good early varieties of fine appearance, and the quality is of the best. Duchess of Albany, Model, Telephone, and

Webb's Stourbridge Marrow are fine for succession. Alderman is one of the finest and most reliable midseason varieties, and as an exhibition Pea is hard to beat. Sutton's Peerless Marrow is also a grand variety for any purpose. For later sowings Carter's Michaelmas, Sutton's Late Queen, and Webb's Talisman are all of fine quality and very prolific, and for very late work The Gladstone is perhaps the most popular at the present day, especially on the exhibition table. Ne Plus Ultra cannot possibly be beaten for quality, but is often subject to bad attacks of mildew. Veitch's Autocrat still holds its own as one of the best late Peas, and succeeds almost anywhere. Webb's Masterpiece is much in the same way, but with slightly larger pods. We grow this largely.

PRIZES FOR GARDENERS. MARCH.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
are offered for the best Essays on the subject of
SUMMER GARDENING.

The essay must not exceed 1,000 words in length; it must describe the best way (in the writer's opinion) of keeping the Flower Garden beautiful during June, July, August, and September. The various plants recommended must be correctly described with regard to height, colour of flowers or foliage, and time and duration of flowering. More points will be given to the essayist who is able to show how the garden may be made attractive throughout the summer by one planting only, than to those who advocate successional plantings. The prizes will be mainly awarded for the information given. Style of writing will not be so much considered. The object is to have plain practical gardening experience. The first prize essay will be published. This competition is open to all professional gardeners.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

March 13.—Annual Meeting of the United Horticultural Benefit Society.

March 14.—Royal Horticultural Society's Meeting; Milton and Sittingbourne Horticultural Society's Meeting.

March 22.—Royal Botanic Society's Show.

March 28.—Royal Horticultural Society's Meeting; Horticultural Club Dinner at 6 p.m., followed by a lecture on "Forests, Wild and Cultivated," by Dr. Henry.

March 29.—Liverpool Horticultural Association's Show (two days).

A Coloured Plate of the Green Walk in the gardens at Drummond Castle will be given with THE GARDEN next week.

Royal Horticultural Society.—The next fortnightly exhibition and meeting of this society will be held on Tuesday, the 14th inst., when a lecture, illustrated by lantern slides,

will be delivered by the Rev. Professor Henslow, V.M.H., on "Bud Variation."

Lecture on "Fruit Growing in British Columbia."—At the general meeting of Fellows of the Royal Horticultural Society, held on the 28th ult., Sir Albert Rollit, M.P., occupied the chair, and a lecture was delivered by the Hon. J. H. Turner, Agent-General for British Columbia, on fruit-growing in that colony, whose remarks were illustrated by a magnificent series of photographic lantern-slides specially made for that occasion.

Shrewsbury Floral Fete.—The committee of the Shropshire Horticultural Society, by instruction of the annual meeting, are again to consider the question of purchasing the Priory property adjoining the Shrewsbury Quarry. The matter is more urgent than it was when the society discussed it a year ago, because the development of the Priory as a building site was then only talked of, and now plans for the erection of a number of small houses are actually before the council, and it would be playing with a very real danger to treat those plans as merely "kite flying." The special obligation in regard to the question properly rests upon the town council, who, as the guardians of the beautiful quarry, ought to be prepared to make some sacrifice to prevent the erection of rows of staring, uniform cottages close to one of its noble avenues. It is certain the public would not begrudge any reasonable expenditure to prevent the slightest damage to the pictorial value of the quarry, and they would never forgive the authority that permitted it without an effort. Perhaps, between the council and the Horticultural Society, Shrewsbury's never-failing milch cow, it may be possible to acquire the Priory property at a reasonable price, and to extend the attractions of the quarry instead of interfering with them.

Rhododendron præcox.—Seeing in THE GARDEN of the 18th ult. a note about the *Rhododendron præcox*, I thought your readers might be interested in seeing the enclosed photograph which I took here on the 22nd ult. The shrub has been a glorious mass of rosy lilac blossoms; it was planted about twenty-three years ago, and is in a shrubbery facing the north. You will notice that the flowers are drooping a little, and this is not to be wondered at, since 7° of frost were registered on a covered thermometer the night before I took the photograph.—W. A. WATTS, *Bronwydfa, St. Asaph*. [The photograph, unfortunately, was not suitable for reproduction, but it showed a large plant in full bloom.—ED.]

Fantin-Latour's flower paintings.—In Messrs. Obach and Co.'s Galleries (168, New Bond Street, W.) there is just now an exhibition of flower paintings by the late M. Fantin-Latour. All who have enjoyed seeing M. Fantin-Latour's flower paintings from time to time should not miss this opportunity. Here are gathered together, under the happiest conditions, many famous works. The collection also includes a number of lithographs, but these hardly come within the scope of this notice. Roses here, as in the garden, easily take the first place, and of the many beautiful flower studies shown two, at least, of the paintings of Roses take highest rank. No. 11, "Basket of Roses," is a splendid piece of colour and arrangement, the flowers beautiful in themselves and the rendering brilliant. No. 43, "Gloire de Dijon and Celine Forestier Roses." Perhaps we may throw a doubt on the correctness of the title of this study, but, having done so, it is impossible to find any fault. The Roses, red, pink, and yellow, glow out luminously from a dark background wholly unrelieved, the pot they are arranged in being dark also, thus concentrating the brilliancy of the flowers. No. 40, "Glass Vase of Roses." Here are more beautifully-painted Roses, but in this case the rather stiff arrangement of the flowers in a dark green glass detracts from the beauty of a painting that, had M. Fantin-Latour not given us others so perfect

in every respect, we should have doubtless been absolutely satisfied with, so good is the rendering. Yet another Rose picture well worthy of note is No. 34, "Bouquet of Moss Roses and others." This is another study in which the Roses—pale pink this time—seem to shine out luminously from a deep dark background.

The spring vegetable crop.—In this part of the country we have again to note the loss of a good number of the winter vegetables, or those which should give a spring supply. This loss is not to be wondered at when the weather we have experienced is taken into account. From present appearances a scarcity of good green vegetables will be experienced later on, and even now they are none too plentiful; though such things as Borecoles and late dwarf Brussels Sprouts are less injured than others, there is a considerable amount of injured growth or foliage. The early autumn frosts did much harm before the growth was hardened. Then came warm intervals, again frosts, and much fog; indeed, in this part of the country I think the latter greatly injured the Brassica family. Our spring Cabbages suffered badly, being covered even now with the black greasy substance that is left after the fogs. This causes the centre or young growth to decay or stop growing. Of some thousands of Broccoli we have not as many hundreds left, and previously the plants were remarkably good, being planted early. I think dwellers near towns, especially large ones and near the metropolis, have much to contend with in such seasons. Herbs are much injured.—WEST MIDDLESEX.

Acetylene gas refuse.—Referring to the enquiry of H. P. Powell about the use of the refuse of acetylene gas, I have been using some on very heavy clay soil. It helps to keep the ground open if sprinkled on after digging. I did not find any difference in the Onions, and do not see any difference in the Cabbage plants that are growing where it was applied. It helps to keep the top soil workable, so that we can use the hoe; it is useful in that respect, but I think that is all.—J. B., *South Godstone, Surrey*.

The Journal of the Royal Horticultural Society.—The volume (XXIX.) which has just reached us contains, as usual, a mass of information. The papers that have been read at the fortnightly meetings and before the Horticultural Club are of exceptional interest, especially those on "Himalayan Rhododendrons," by Sir John Dillwyn-Llewelyn, Bart.; "Indian Primulas," by Sir George Watt, C.I.E., LL.D.; "Planting for Autumn and Winter Effect," by the Hon. Vicary Gibbs; "Far Eastern Maples," by Mr. James H. Veitch; "Pests of the Shrubbery," by Dr. Cooke, V.M.H.; "Hybridisation of Roses," by M. Viviani-Morel; "Enemies of the Apple," by M. Charles Baltet; "Diseases of the Potato," by Mr. G. Massee, F.L.S., V.M.H., besides other important contributions to horticultural science and practice. The most important feature of the volume is the illustrated account of the centenary of the society, and while writing of this we may remind Fellows that a debt of about £10,000 on the new hall still exists, and there is much to be carried out at Wisley. We can only repeat what we have written on many occasions—the Journal is a work worthy of all praise. It is edited in a masterly way, and we are not surprised that the roll of Fellows steadily increases when such a volume is sent to each one several times a year.

Jasminum nudiflorum.—In a neighbouring garden to my own a plant of this winter-flowering Jasmine was planted on the east side of a wall 5 feet in height. In course of time it covered the top, and, being attracted towards the west, has covered a good portion of the wall on that side. It has been glorious in appearance for the past three weeks, blooming with remarkable profusion. The fact that it is so common must not be allowed to detract from its value in the garden.—R. D.

Crocus Sieberi.—I read with much interest Mr. Arnott's paragraph upon *Crocus Imperati*. Let me urge your readers to grow *Crocus Sieberi*. The soft purple colour is very attractive, and I think it is less liable to be battered about by wind and rain than *C. Imperati*. *C. tomassianus*, now in full bloom, is a pretty *Crocus* and very easily grown.—F. A. STURGE, *Cood Efa, near Wrexham*.

Eupatorium ianthinum.—This plant, intermixed with *Spiraea van Houttei*, forms one of the prettiest groups in the greenhouse at Kew at the present time. To many readers it is probably more familiar under the name of *Hebeclinium ianthinum*. It requires warm greenhouse treatment. Cuttings rooted in spring if grown on without stopping flower the following winter. Treated more as a biennial and pinched several times much better results are obtained.—A. O.

The foreign fruit trade.—A very able paper on "The Foreign Fruit Trade" was read to the members of the Montrose Horticultural Society on the evening of February 15, when there was a good attendance. The author was Mr. J. D. Johnston, who considered many different countries and the fruits they sent us. The field covered was naturally a wide one, and the paper was written in an interesting way. A feature was made of the growth in the importation of Bananas within recent years. Mr. Johnston was warmly thanked for the paper.

Popular plant names.—Mr. S. Arnott, Carsethorn, contributed a paper on "Local and Other Plant Names" to a meeting of the Dumfries and Galloway Natural History and Antiquarian Society, in the lecture-room of the Ewart Library, Dumfries, on February 17. The paper was the first instalment of the subject which is being taken in hand with a view to securing a complete list of the popular names prevalent in Dumfriesshire and Galloway. A number of the local plant names were given and compared with those in use elsewhere; while notes regarding the origin of several were added to elucidate the names. Mr. Arnott was heartily thanked for his paper on the motion of the president, Mr. G. F. Scott-Elliot.

Prunus davidiana.—Included in the large *Prunus* family is a considerable number of useful spring-flowering trees and shrubs, and of this number the one under notice is the earliest to bloom, and was on February 17 the most effective outdoor subject at Kew. If the weather is mild it may be found in flower sometimes in January, but it is more often the middle of February before it opens its blossoms. It belongs to the Almond section of the genus, and has as near relatives *P. Amygdalus* (the common Almond) and *P. Persica* (the Peach). *P. davidiana* is a Chinese species, and has not occupied a prominent position in gardens for more than ten or twelve years. It is, however, a fast grower, and specimens 16 feet to 18 feet high and 12 feet through are to be met with. At Kew there are several fine specimens, one of the above dimensions, being conspicuous near the pond. This particular example was raised, with others, from seeds received eleven years ago. The flowers are about 1 inch across, pink in colour, and borne along the whole of the past year's wood. There is a variety, *alba*, with white blossoms, which is quite as valuable as the type, and both find hosts of admirers, flowering, as they do, well in advance of their relatives. Small plants in pots are useful for forcing for the greenhouse, as with little trouble they can be got in bloom by Christmas.—W. DALLIMORE.

Garrya elliptica.—Among catkin-bearing shrubs the male form of this plant is probably the best, and although it is not common, it is frequently met with in gardens. As a rule, it is planted against a wall, though, in the southern counties at any rate, this is not absolutely necessary, as it forms quite a bush in the open. Grown against a wall it receives some protection

in the flowering period, and the extra warmth thus afforded results in the catkins coming larger and finer. The species is a Californian one, and has been known since 1828. Planted against a wall it attains a height of at least 12 feet, while in the open about London it grows from 6 feet to 8 feet high. The leaves are elliptical, and from $1\frac{1}{2}$ inches to $2\frac{1}{2}$ inches long. The inflorescences are borne during winter, and are at their best from January to March. When in perfect condition they are yellowish green in colour, and 6 inches to 8 inches long. For cutting, branches heavily laden with catkins are of service, as they last well, and are uncommon. The female form is similar in leafage to the male, but the flowers are very minute. It is very rare in cultivation. It is also a useful evergreen, but very young plants should be placed in permanent positions, as very few roots are formed in comparison to the branches, and the transplanting of large specimens is attended with considerable risk. Cuttings of half-ripened wood in summer will root indoors in heat, but it is not one of the easiest shrubs to increase. Inexperienced people would do better to layer the lower branches if they wish to increase their stock. A species called *G. Thureti* is also hardy, but is of little use.—W. DALLIMORE.

Gardeners' examinations.—The form of examination you have instituted for gardeners in the pages of THE GARDEN should be interesting to all sections of gardeners. Searching questions set by experts in diverse branches of horticulture, to be answered briefly and to the point, should arouse a great desire to answer them properly, even by many readers who do not care to become candidates for the examination. Questions of this kind help greatly to search out the full extent of our general knowledge on these subjects. Those, for instance, on which Mr. Vicary Gibbs has so kindly adjudicated present features in relation to gardening such as are far from being common. Unhappily, we have too few Aldenham amongst our gardens, for what is grown and seen there is, as far as trees and shrubs are concerned, almost unique. The publication of what should be a good series of answers is a feature exceedingly welcome. It is to be hoped that a similar course will be taken in connexion with all the competitions.—A. D.

Thysacanthus rutilans.—Apart from its high ornamental value, the *Thysacanthus* has the great merit of distinctness. It was introduced from Columbia over fifty years ago, but it is very uncommon. Where the glass structures of an establishment are divided into stove and greenhouse, the first-named being kept at a temperature suitable for Crotons, *Dracenas*, and such things, and the greenhouse kept just free from frost during the winter, there is no place for the *Thysacanthus*, as, like so many of its immediate allies—the *Aphelandras*, *Eranthemums*, *Justicias*, *Jacobinias*, and others—an intermediate temperature is necessary to its well doing, as in a stove the foliage is very liable to be attacked by red spider. To see this *Thysacanthus* at its best dwarf plants should not be aimed at, for the long pendulous racemes are seen to far greater advantage when the plants are what is usually termed leggy, as the weeping character of their flowers is then well seen. Cuttings strike readily during the spring months, and to see them at their best the plants should be grown on liberally throughout the summer.—H. P.

Eupatorium petiolare.—According to the "Dictionary of Gardening" there are about 400 species of *Eupatorium* known to botanists, but comparatively few of them are grown. A limited number have, however, for some years been popular as winter or early spring flowering plants for the greenhouse, and in this respect their culture has of late received a considerable stimulus, owing either to the introduction of some new forms or the reintroduction of old kinds—which, it is almost impossible to say, as the nomenclature of the cultivated *Eupatoriums* seems to be in a decidedly confused state. Last

year awards of merit were given by the Royal Horticultural Society to two species, viz., *E. vernale* and *E. petiolare*, and, much as I admired this last named when exhibited, the good impression formed of it has been improved by further acquaintance. It is certainly a delightful plant for flowering during the early months of the year, and, like the other members of the genus, is of easy propagation and culture. I cannot find the specific name of *petiolare* in any work of reference to hand, so conclude it is a novelty, not a reintroduction. It forms a freely-branched bushy plant from 2 feet to 4 feet in height, clothed with pointed heart-shaped leaves, thin in texture like all the other members of the genus. The flowers, which are in branching corymbs, suggest when in the bud state a tiny single Daisy, being of a deep pink in the centre, toning off to white at the edges. After a time the petals protrude from the cushion-like disc, and thus give a fluffy aspect to the flower, which is then about half an inch in diameter, and pure white or nearly so. The contrast in colour between the partially expanded flowers and those fully opened is very noticeable. In general appearance the flowers are more refined-looking than most of the *Eupatoriums*, hence they may be used in a cut state for purposes where the coarser kinds would be inadmissible. Cuttings of *Eupatorium petiolare* strike root as readily as those of a *Fuchsia* with similar treatment. Those struck in the spring may be grown into fair-sized bushes by the winter, while even those put in during the summer will flower well as small plants.—H. P.

Plectranthus crassus.—This, which has been flowering for some time in the T range at Kew, is a near ally of the *Coleus*, and, like the popular *Coleus thyrsoideus*, is a native of Central Africa. At present it is not in general cultivation, but, being a promising plant and easy of propagation, it will doubtless soon be universally grown. It appears to branch but sparingly, the plants as seen having upright stout stems 18 inches to 2 feet in height, clothed with ovate leaves about 4 inches long, and half as much or a little more in width. In colour they are of a pale green. The flowers, which are borne in rather narrow, terminal spikes, are arranged in whorls, which continue to develop and thus maintain a succession for a considerable time. In colour they are a lavender-blue tint, which, though for richness of colouring cannot compare with the deep hue of *Coleus thyrsoideus*, affords, nevertheless, a pleasing variety during the winter season. To ensure bushy specimens many plants are by our market cultivators grown three in a pot, and this method appears likely to be suitable in the case of the *Plectranthus*, for, as with *Aphelandras* and kindred subjects, if stopped to ensure branching the flower-spikes are poor and ineffective. Apart from its own intrinsic merit, there is the possibility of this *Plectranthus* proving, in conjunction with the flowering *Coleuses*, of considerable value to the hybridist.—T.

Azalea obtusa.—Botanically this is now regarded as a variety of the Indian *Azalea* (*A. indica*), but in gardens at least it is usually given specific rank. At all events, it is in general appearance widely removed from the average Indian *Azalea*, more nearly approaching the *amena* section, which is also botanically only a variety of *Azalea indica*. The usual habit of *A. obtusa* is to form a freely-branched bush without that flattened form common to old plants of *A. amena*. It is hardy only in particularly favoured localities, hence must in a general way be regarded as a greenhouse shrub. The flowers, borne in great profusion, are about 1 inch across and a kind of salmon-red or terra-cotta tint, an effective shade during a dull winter's day. They are borne in such profusion that the entire plant is quite a mass of colour—that is, when at its best—but as a rule this final display is preceded for some time by a scattered succession of its pretty blossoms. There is a variety (*alba*) in which the flowers are white, though there is

usually a decided tendency to revert to the normal form, sometimes limited to red stripes on the white flowers, while occasionally whole clusters, and even branches, revert to the normal red tint. Treated as an ordinary greenhouse plant it will often flower throughout the winter. For the introduction of this pretty Azalea we are, I believe, indebted to the late Robert Fortune. It must be grown as a bush, for, grafted on a naked stem like Indian Azaleas are often treated, a good deal of its beauty is lost.—T.

Webb's Emperor Cabbage.—The following letter has been sent to Messrs. Webb and Sons from the Polden Hill Dairy, Chilton Polden, Bridgwater (F. Elgar, proprietor): "I cut and sold some Webb's Emperor Cabbage on February 18. Seed sown in July and planted out in open field in September. Is this a record? I may say that I have grown Webb's Emperor for a good many years, and have never known the plants run to seed."

A way to help the Royal Horticultural Society.—Just at the present time it is probable that many Fellows are sending in their annual subscription to the Royal Horticultural Society, and I would like to suggest how delightful it would be if each Fellow would add one guinea to his cheque; the number of Fellows about corresponds with the number of guineas wanted to clear the debt, and to many it would not be a very great effort or sacrifice, and the whole result would be a very substantial one and would go far to put our very liberal and enterprising society out of debt. I feel sure all Fellows are sufficiently interested to experience a genuine pleasure should a good response bring such a great benefit to the society for so small an individual outlay.—ONE OF THE FELLOWS.

A new Lettuce.—At this season growers who require salad as early as possible are considering the best way of securing an early crop. In this part of the country the foggy weather has proved most destructive to the autumn-sown Lettuce; indeed, for some seasons after many failures (even under glass) to preserve the crop I have come to the conclusion that for reliable supplies plants from seed sown in heat and grown on under glass are the most profitable. This new Lettuce—Sutton's Earliest of All—is a small, quick grower and a distinct acquisition. It may be compared to Commodore Nutt or Tom Thumb, and, like the two named, makes a rapid growth, which is earlier than those named. The heart is very firm and compact, and there are no outer leaves, by this I mean there is no waste owing to its close growth. The delicate tender growths are much liked either when served whole or in the salad bowl. Owing to its rapid growth it should be used when at its best, as it does not keep. Frequent sowings in the spring or autumn are needful, and, as large heads are not often required, this variety will be found most useful sown at intervals of three weeks. Select a cool site for the later sowings; it is an ideal early Lettuce for a private garden.—G. WYTHES, *Syon Gardens, Brentford*.

A valuable new Pea for pot culture.—Peas should be more grown in pots from start to finish. Great strides have been made of late years in this direction, some excellent dwarf varieties having been introduced. One that I found most valuable for pot culture was Sutton's Little Marvel, which is a true pot or frame Pea, owing to its dwarfness and free cropping. Three to five seeds sown in 7-inch or 8-inch pots give a wonderful return for the space occupied. Grown thus it is about 18 inches high, though it is a little higher in rich land. The pods are broad, dark green, and produced mostly in pairs, and they are of splendid table quality. When grown in a cool house they compare most favourably with those from the open. I have had good crops by placing the pots when sown in an early fruit house, say, early in November, and later on transferring to frames. Grown thus they give a good return early in spring, and it is the earliest Pea to mature I

have grown. Of course, given more warmth, the result would be even more rapid, but with forced vegetables I do not advise too much warmth at the start. Little Marvel is also good for frame culture. This variety received an award of merit in 1902, and a first-class certificate a year later from the Royal Horticultural Society, and it well deserved it.—G. WYTHES.

British Gardeners' Association. A meeting of the gardeners of Birmingham and the surrounding district was held in Birmingham on the 13th ult. to consider a proposal to form a local branch of the British Gardeners' Association. About 150 gardeners attended, and they were addressed by Mr. W. Watson (the hon. secretary of the association) and Mr. W. P. Wright (a member of the committee). On the motion of Mr. J. Udale, Horticultural Instructor for Worcestershire, seconded by Mr. W. H. Morter, head gardener of the Birmingham Public Parks, it was unanimously resolved at once to form a branch, and Mr. W. H. Deedman of Edgbaston was elected secretary *pro tem*. A somewhat lengthy report of the proceedings will be found in the *Birmingham Daily Post* of the 14th ult. A meeting of the Kenley and Coulsdon Horticultural Society, held at the Commemoration Hall, Purley, on the 15th ult., was addressed by Mr. J. Stocks as a delegate from the committee of selection of the association, his account of the objects and programme of the association being very well received. At a special meeting of gardeners, held at Altrincham on the 16th ult., the formation of a local branch of the association was agreed upon. A committee was elected to carry on the work of local organisation, with Mr. W. H. Jenkins, Wythenshawe Hall Gardens, Northenden, as secretary.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

WHEN ARE APPLES OUT OF SEASON?

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I see that Messrs. George Bunyard and Co. have just been awarded by the fruit committee of the Royal Horticultural Society a gold medal for a collection of Apples including varieties which can only be described as early and mid-season. Would it not be very much better if the committee were to disqualify collections staged at such a late date as this if they included specimens which, although they may have the best of skin and colour, could not possibly be described as in anything like good condition for the table? Surely the note *re* "Valuable object-lessons, as showing which varieties are at their best at this season," could not possibly apply to such varieties as Cox's Pomona, Lord Derby, and The Queen, all of which are mentioned among the exhibits, under any ordinary condition of storage. *Cullompton, Devon.* W. TRACEY.

[With reference to the letter above, we have so frequently heard similar expressions of opinion as to the legitimacy of showing fruit "out of season," that we welcome the opportunity of reply given us by the Editor. In the first place we would ask what is the season of Sturmer Pippin or any other very late Apple? Are we asked to eat it as gathered from the tree or after storing? Or take a case at the other end of the season: Is the Irish Peach, exhorting by a Scottish grower, to be disqualified because its ripening season does not coincide with a Kentish-grown fruit? We do not envy the task of a society which undertakes to fix an exact date when the hundreds of varieties of Apples, Pears, and other fruits which are exhibited are considered to be "in season." Turning to the question of "ordinary conditions of storing," we would ask if a thatched matchboard shed is

not an ordinary store? The extraordinary conditions are probably the care and attention which the fruit receives. But if the gardener who, by constant attention and skill, succeeds in coaxing a reluctant Orchid into flower, by the same care is able to exhibit a good collection of Apples rather later in the season than his neighbour, are we asked to reward his success on the one hand with a cultural commendation, and on the other with disqualification? Many varieties of Apples are generally acknowledged to be of decorative value only. Are these not in season as long as they preserve this character? May they not grace our tables as well as the frankly-not-to-be-eaten Pine? We therefore conclude the fruit is in season as long as it fulfils the purpose for which it is grown. If Emperor Alexander can retain its decorative value at Christmas, if Lord Derby can be kept in good condition for kitchen use until March, and Sturmer Pippin figure with credit in our June dessert, they may still be considered "in season." The presence of retarded Lilies, forced Azaleas, Lilacs, &c., which add so much to the beauty of our spring exhibits in the conservatory, or upon the show table, testify to the recognition of this conclusion in plant culture. Why should it not also be extended to the both useful and ornamental fruits?—GEORGE BUNYARD AND CO., *Maidstone*.]

OSTROWSKIA MAGNIFICA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The correspondence which has taken place with reference to the hardness of the above-named plant appears to have established not only that it fails in very many cases, but also that, while it is possible to indicate causes, it is impossible to suggest remedies for these failures where they occur. Certainly I cannot do the latter, but the very interesting article by Sir Michael Foster in *THE GARDEN* (page 49) induces me to send a note on the subject. There is no more apparent affinity between a garden where the subsoil is chalk and another where the same is the lower green sand (commonly called rag-stone) than there is between the spurs of the Gog-Magog Hills in Cambridgeshire and the "Hoppiest" parts of Mid-Kent; but it seems to be an established fact that certain plants of Asiatic origin do somewhat exceptionally well in both Sir M. Foster's garden and mine.

This was put in evidence some years ago in a discussion that was started in these pages (*vide THE GARDEN* for 1896, Vol. XLIX., pages 219, 276, &c.), in which my lamented friend the late Rev. Henry Ewbank took the principal part. The subject was the successful culture of *Eremurus*, and the Cambridgeshire garden and mine were picked out as spots producing exceptionally favourable results with this plant. Mr. Ewbank started a theory, which was seemingly suggested to him by Sir Michael Foster, to the effect that success with the *Eremurus* depended largely on comparative dryness of the garden during summer, autumn, and early winter. This, of course, promotes the maturing of the seed, while later in the year it tends to prevent precocious growth, the latter factor being the more important. Now, although there is no sort of botanical affinity between *Eremurus* and *Ostrowskia*, yet these two genera may, perhaps, be said, in schoolboy language, to "know each other at home." At any rate, they both come from Central Asia, and it may well be that certain exceptional conditions necessary to the well-being of certain plants may also be necessary to that of others coming from the same part of the world, and possibly from the same, or, at any rate, from more or less similar habitats. It may be, therefore, that, given the conditions where the *Eremurus* does really well, there the *Ostrowskia* will flourish also. With regard to the latter plant I should be disposed to endorse everything that Sir Michael Foster says about it, except that I have myself never found any difficulty in growing it well. My soil, which both in summer

and winter has many demerits, to say nothing of a surfeit of lime which kills many things I should like to grow, is no doubt more retentive of moisture than any that immediately overlies the chalk; at any rate, I have seldom found it necessary to give the plant water in spring, or, indeed, to trouble myself with its cultivation when it is once established. Here the plants grow close on 6 feet high, and year after year produce their truly magnificent flowers in increasing abundance. I, too, find that good seed is seldom produced in much quantity. The large seed-vessels are usually swarming with earwigs, but whether these vermin are attracted by bad seed, or have any part in turning what would otherwise be good into bad, I cannot say. Once or twice (though not, I think, last year) I have found seedlings come up in the spring in fair quantities round the parent plant, but I have never succeeded in transplanting these successfully, a failure which may be due to insufficient care, or not, improbably, to premature removal. Probably most people who have seen *Ostrowskia* in perfection would agree that it is the finest hardy plant of recent introduction. I cannot recollect the exact date when it was introduced, but it may safely be said that we have not since had so remarkable a contribution to the outdoor garden. I, also, am quite prepared to vouch for its hardiness, so long, that is, as Sir M. Foster's definition of hardiness be accepted, *i.e.*, "the capability of resisting the frosts and other ills of an English winter." This is what I, and probably most other people, mean when we speak or think of things being hardy. There is, however, apparently some ambiguity in the occasional use of the word, and things get spoken and written of as "not hardy" because they die or fail to come up again in some gardens. Thus we find non-hardy plants under two categories, *viz.*, those that will not stand an English winter everywhere, of which large numbers of shrubs, but no very large number of herbaceous plants, are examples, and, on the other hand, those that if they do not die of the soil cannot weather the severities of our English summers. Of this last class there are, as most of us unluckily know, quantities of herbaceous plants and innumerable bulbs. In the case of the latter, however, a remedy may not infrequently be found in improved drainage.

J. C. L.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—There still remains to be told a tale of the successful culture of this fine Bell-flower. In the herbaceous ground at Kew, on the Narcissus border, near the wall bounding the frame ground on the south side, is a plant of *Ostrowskia magnifica*, which I have seen with flowering stems about 4 feet in height, bearing large well-formed flowers about 5 inches in diameter. As far as I can remember, there were altogether seven stems, varying in height from 2 feet to 4½ feet. Three of the stems reached the maximum height, the rest varying within the dimensions stated. When the flowers had faded and the foliage was beginning to turn yellow, the stems, on which there were several seed capsules not yet ripe, were bent down and enclosed within a hand-light, which effectually kept off all rains, but admitted an abundance of air. This would be about the first or second week in August, and, the succeeding weather being very hot, the ground beneath the hand-light became thoroughly parched and dry. The seed capsules matured, and some of the seeds were sown indoors immediately, young plants appearing above the soil in about seven days after sowing. Only two leaves, the cotyledons, were made, and growth was finished in about six weeks from germination, small tubers being formed about 1 inch long and a quarter of an inch in thickness.

Having no note by me I cannot give the exact date when the hand-light was removed, but to the best of my knowledge it was taken away so that all the winter rains and snows fell upon and

around the spot beneath which lay the dormant tuberous roots. Whether this practice of drying off after growth is finished and then allowing all the winter rains full access to the roots is still continued I cannot say, but it would be interesting to know, and also what success has attended the treatment since the years I speak of, *viz.*, 1900 and 1901. Propagation is undoubtedly best effected by seed, but to this means is attached the same drawback which attends the increase of *Eremuri* by similar means, the great length of time necessary for a seedling to reach flowering size. In both cases I have tried to hasten matters by sowing early, and drying off the seedlings as soon as growth was finished, then soaking with water after a few weeks' rest to induce a second growth the same year. I have also tried similar means with autumn-sown seedlings, but with no appreciable good results, comparatively few, less than 10 per cent., responding to the inducements given to make two sets of leaves the same year.

Every piece of the tuberous roots of *Ostrowskia* will grow readily. By this means flowering plants may be obtained a year or two earlier than is the case with seeds.

E. HORTON.

Neston.

USE OF GAS LIME.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have applied gas lime to the garden with good results, but in far greater quantities than your correspondent recommends on page 110, February 18. I applied 15 cwt. to 120 square yards. This was put on in November and laid on the top till the following spring, when it was dug in and the ground manured, then planted with Cauliflower and Cabbage, and I gathered a fine crop of both. Before using gas lime I could neither grow Cauliflower nor Cabbage, as they all clubbed at the roots; it also cleared the ground of slugs. I am using it again this year on another plot, and I have every confidence in good results before the end of nine months.

Meltham, near Huddersfield.

W. M.

STAKING AND PROTECTING ORCHARD TREES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—After careful planting, staking and protecting from rabbits are items of such importance that they must not be overlooked. Unless the trees are firmly staked they are in danger of

being blown about, and the continual swaying eventually loosens them, and their rapid progress is hindered. In the photograph which I send you will notice that a rubber-band is first tied round the tree stem to prevent the ties cutting into the bark. The arrangement of the wire-netting needs no explanation—where rabbits are a nuisance it is most essential. E. S. S.

YELLOW FLESH POTATOES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—With reference to Mr. E. Miles' letter *re* Potatoes, fifteen to twenty years ago a variety of Fluke (Roscoff) was imported from France to this country for consumption which was of



ORCHARD FRUIT TREES, SHOWING HOW TO STAKE AND PROTECT THE STEMS FROM RABBITS.

splendid quality and nearly white, also a blue Potato, Morique or Jersey Blue, which also was very white, and mealy when cooked. Several who tried to grow these in this country (I am speaking of the West of England) reported to me that the yield was poor and the tubers small. To my mind the old Scotch Champion (yellow flesh) had a grand flavour, also the White and Red Rocks. These round varieties were very suitable for growing on rough uncultivated land, as a strong soil would make them rather coarse. I believe they have got into disfavour more on account of their shape and deep eyes than anything else, although they were liable to take the disease. Jackson's Early Kidney, grown about Cheddar years ago for market, was a good early

white flesh Kidney, and preferred by many to the Ashleafs. Improvements as regards quality as well as crop will be welcomed, and I think much could be done this way (in addition to crossing) by careful selection and natural propagation. I might say many get bad results by growing varieties unsuited to their soils by not changing the seed every year and bad rotation with other crops. My father years ago supplied seed Potatoes from Ireland grown on black bog land which made an excellent change for many English soils.

Finsbury Park, N.

R. McDougall.

MARGUERITE CARNATIONS AS CUT FLOWERS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Seeing Mr. Watts' letter *re* Marguerite Carnations as cut flowers in last week's THE GARDEN, I write to say that we have had great success with Marguerite Carnations all the autumn, and up to now I am cutting them every week; they last from a week to ten days in water in my rooms. I consider they are a very satisfactory flower to have in the house. We lifted the plants out of the garden in October into pots in a cool greenhouse, and I shall have flowers for another month. I got my seed from Sutton. This is the first year we have had them all through the winter, and I hope next year to have even more. They have been greatly admired, and are no trouble whatever. I think the water in the vases should be changed constantly and the ends of the stalks cut occasionally, but I cannot understand the flowers closing up so quickly.

Lymington.

MAUD SHRUBB.

ARRANGING DAFFODILS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I send you a photograph of Daffodils in a vase to show that the simpler the arrangement the more effective it is. Each flower has plenty



A SIMPLE ARRANGEMENT OF DAFFODILS.

of room and is shown to the best advantage; unless this is assured the result cannot be altogether pleasing.

J. C. GOULD.
Sleaford. (Messrs. Charles Sharpe and Co.)

DAFFODILS DISAPPEARING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Some fifteen and more years ago I had many hundreds of *Narcissus cernuus*, which had, no doubt, been in my garden for generations. They have been gradually disappearing for some years, and now I have few left. The bulbs appear to rot at the bottom, and fail to put out roots. The same thing has happened to quantities of the old double yellow. One long borderful (dry) has almost disappeared. The bulbs have the same rotten appearance as *cernuus*. Is this

a disease? On the other hand, Emperor, Empress, and Horsfieldi increase rapidly. Tenby will not grow. The soil is limestone. I should be glad to know cause, &c.

NORTH COTSWOLD.

ENGLISH *v.* AMERICAN APPLES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It is possible that some hard things recently said in comparing home-grown and imported Apples is intended to arouse here at home some feeling of alarm lest our home Apple trade should be smothered entirely by importations. It is so hard to arouse Britishers in matters of culture and trade, hence the statements commented upon. Most certainly we can, and do, grow the finest and best Apples in the world, and, while we produce vast quantities of worthless fruit, we also produce superb fruit such as the finest from Canada or the States cannot excel in size or quality, but may a little in colour. Mr. Struggnell's suggestion that a British Apple Society, formed on the lines of the National Potato Society, should be constituted merits full attention, because Apples are such an important food and market commodity, and their culture an equally important industry. The Royal Horticultural Society does what it can to encourage Apple production, but its capacities are greatly limited. Practically it seems needful to establish a society that shall make the national culture of Apples a matter of the very highest moment. We need throughout the kingdom that same interest in Apples which it is now so evident exists in Potatoes, an interest that is found permeating every section of the community, whether gentlemen's gardeners, market growers, amateurs, farmers, or cottagers. If we are now producing what is, after all, relatively but a small proportion of fine fruit and a very large proportion of very third-rate fruit, is there not ample room for a special Apple society to operate on the inferior section of producers, and thus, perhaps, in time bring their products up to the high standard of the few?

A. D.

PEACH TREES IN FLOWER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—When Peach trees are in flower they need careful treatment, otherwise the crop may be a poor one, or perhaps lost altogether. If they are grown in pots it is more than ever necessary to attend to them with care, for the roots are then more likely to experience sudden changes than when they are in a large border; the soil in pots quickly becomes dry, especially when it is full of roots, and it is more easily influenced by the temperature of the house than border soil. Care must therefore be taken to keep the roots well supplied with water, and to guard against sudden changes of temperature, both for the sake of the flowers and the roots. A dry atmosphere and plenty of air are conducive to a good set of fruit; the pollen is then kept dry and well dispersed.

PRUNUS.

NON-BURSTING CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

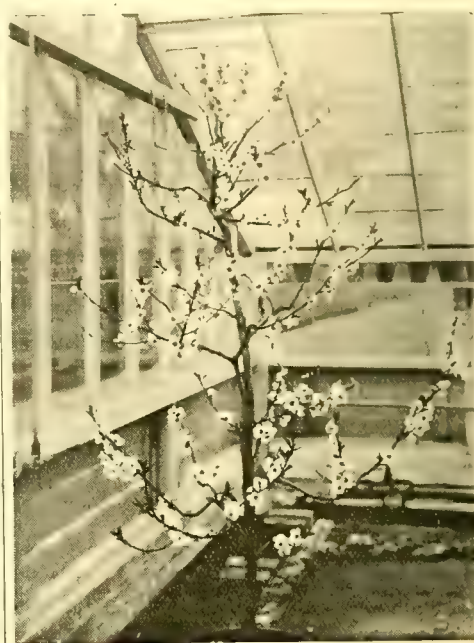
SIR,—In answer to your correspondent "W. I." in THE GARDEN of the 11th ult. for a dozen Carnations and Picotees which do not burst the calyx, let him try the following: Alma, crimson-maroon; Beauty of Exmouth, white; H. J. Cutbush, scarlet; Jocelyn, heliotrope; Lady Nina Balfour, blush pink; and Lord Roberts (Boyes), yellow. Yellow ground fancy—Duchess of Roxburgh, George H. Godfrey, H. Falkland, and Mrs. Wall. Picotees—Caracci and Mrs. Durrant. Nellie Ryan and The Rejected are also two good fancies that do not burst their calyx.

Forest Road, Guernsey.

H. BURNETT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—“W. I.” should grow Crimson Pearl, Duchess of Fife, Ensign, Isinglass, James Smith,



DR. HOGG PEACH TREE IN FLOWER.

Miss Audrey Campbell, {Pink Beauty, Uriah Pike, Nestor (the finest new border Carnation), Lord Roberts, Lanyun, and Brunette.

J. P. H.

THE FRUIT GARDEN.

APPLES FOR SMALL GARDENS.

CONTINUING the selection of dessert Apples for gardens of limited extent, the first of which appeared in THE GARDEN of January 28, I give the following as reliable varieties to follow:

October.—James Grieve: A comparatively new Scottish Apple. This variety has come to the front very rapidly as one of the best early sorts. In the opinion of many it is second only to Cox's Orange Pippin in flavour, but is a better grower and cropper. It is suitable for garden or orchard. *Mother Apple:* This is an American Apple of rich and delicious flavour, with a pleasant aroma peculiar to itself. It is of medium size and conical form, and the colour is very attractive, a rich crimson, the flesh being soft and white, suited for garden or orchard. *St. Edmund's Russet:* To those who love a Russet Apple, with its dry and sometimes rather tough flesh and distinct and delicious flavour, this is the best of the early Russets. It is of moderate growth, a good bearer, and suited for orchard or garden. *Wealthy* is another American introduction, and one of the best for October. It is attractive in appearance, light crimson at the apex, deepening to dark crimson at the base. The flesh is white and tender, and the flavour sweet and refreshing. It is also a good cropper, suitable only for the garden.

November to February.—As the season advances late varieties of Apples remain in condition longer for dessert than Apples which ripen earlier. Therefore our next selection will extend from November to February. It is needless to say anything in favour of Cox's Orange Pippin. It is well known to most people as being by far the best of all dessert Apples at this season of the year. To those who may be unacquainted with its merits I can only say that I strongly advise them to plant trees of it without delay. It succeeds equally well as a standard in the orchard or as a bush in the garden. So highly

do I think of this variety that I felt inclined to pass over all other sorts which are ripe at the same time. In that case I should have to omit at least two favourite and familiar old sorts. I refer to Ribston Pippin and Blenheim Orange. Ribston Pippin is a deliciously flavoured Apple no doubt, but not equal to Cox's, and it is constitutionally weak and subject to canker, and is only suitable for garden culture. Blenheim Orange is indispensable, and taking it as to all its points, whether for kitchen or dessert, it is the finest English Apple we possess.

February to May.—There are here several varieties to choose from, and the following are among the best, and are mentioned in the order of their ripening:—Lord Burghley: This is in season from February to the middle of April. It is a bright and cheerful-looking Apple, conical in shape, with rosy cheeks. It has sometimes been called the Winter Cox's Orange, on account of its richness and sweetness of flavour. The variety is prolific, and the tree is of moderate growth, but, unfortunately, it is rather inclined to canker. Fearn's Pippin: An old favourite winter Apple. A sure cropper. Flesh tender and white, and the flavour sweet and pleasant; ripe March and April. King of Tompkin's County: No collection of winter Apples should be without this sterling sort. It is good for dessert or kitchen; ripe March and April. Lane's Prince Albert is more often associated with the kitchen than the dessert, but when kept until March or April it is good for the latter. It is of large size, handsome, and the most prolific and constant bearer of any Apple we have; ripe March and April. Wyken Pippin: A sweet Apple, succeeds well in the orchard. Duke of Devonshire: This is a most unpretentious-looking Apple, having a dull, greenish yellow skin, but it makes up for this in the excellence of its flavour, being in this respect one of the most distinct and best; ripe April and May. Allen's Everlasting: A very handsome and well-flavoured Apple is this, but not a heavy bearer. It was recently awarded a first-class certificate by the Royal Horticultural Society; ripe April and May. Sturmer Pippin: This is the latest of all dessert Apples, and one of the most prolific. The flesh is firm and juicy, greenish white in colour, the flavour is sweet, brisk, and pleasant; ripe May and June, and even to July, when Apples come again. Late

Apples are frequently seen in a shrivelled condition in spring, by which the beauty of their appearance, quality of flesh, and sweetness of flavour (as well as their market value) are much discounted. Two causes are responsible for this, the chief being gathering the fruits too soon in the autumn. Late Apples should not be gathered before November. The second cause is keeping them in too dry a room during winter, often a loft over another room. The cellar under a room would be much better, where a temperature of 45° to 50° can be maintained.

OWEN THOMAS.

GRAPE WHITE LADY DOWNES.

REFERENCE was made to this Grape by the Editor on page 62, asking opinions of those who have grown it. I had a good opportunity of testing its merits some years ago with many other varieties that we seldom see or hear of now. This was when Mr. McIndoe first planted the extensive vineries at Hutton Hall. Seeing the value of a really good long-keeping white Grape, no pains were spared to grow this freely as a valuable companion to the black variety, but after trying for several years its culture proved disappointing either on its own roots or grafted on several other varieties. The habit of growth was practically the same as the Black Lady Downes, but we found that the berries were not only more prone to scald than the latter variety, but the bunches that were secured and the berries they produced (which rusted badly) had certainly not a tempting appearance on the dessert table. I believe the original stems still remain in the vineries, but these were used as stocks for inarching Madresfield Court, Black Lady Downes, and several others, all of which did well. My experience, therefore, is not in its favour. I cannot advise anyone to plant it, thinking thereby they would succeed in obtaining a good white winter Grape. How very valuable a Grape would



A STANDARD H.P. ROSE: THE SAME ROSE PRUNED AND UNPRUNED.

prove that would produce a good crop of excellent fruit and last in good condition until, say, forced Foster's Seedling were ripe in May!

RICHARD PARKER.

THE ROSE GARDEN.

HOW TO PRUNE ROSES.

THE season for Rose-pruning is at hand, and we feel sure readers of THE GARDEN will be anxious to receive information on the carrying out of this important spring work. The following notes by Mr. Edward Mawley, hon. secretary of the National Rose Society, are so practical and helpful that we reproduce them. This well-known authority writes:

Armed with a pruning-knife, which should be of medium size and kept always with a keen edge, an easy pair of gardening gloves, a hone on which to sharpen the knife, and a kneeling pad, the pruner will require nothing more except a small saw, which will prove of great service in removing extra large shoots and dead stumps. A really good secateur may be used instead of a knife if preferred. In pruning the cut should always be made almost immediately above a dormant bud pointing outwards. In all but an exhibitor's garden the best time to prune Roses is early in April.

1. ROSES WHICH REQUIRE TO BE MORE OR LESS CLOSELY PRUNED.—Under this heading are included at least three-fourths of the Roses most frequently grown in gardens at the present time as dwarf plants. All the weak and moderate-growing varieties must be pruned hard each year, and also all plants, with few exceptions, intended for the production of extra large flowers. But



A GARDEN ROSE BEFORE AND AFTER PRUNING.

those Roses which have been planted for the decoration of the garden, or for the production of cut flowers, need not be so severely dealt with, while those planted as Rose bushes will require comparatively light pruning.

Hybrid Perpetuals.—The first year after planting all the dead, sappy, and weakly shoots should be cut clean out, and those remaining left from 3 inches to 6 inches in length, whatever the variety may be. This hard pruning is necessary the first spring, but in the following years it need not be so severe. The dead, sappy, weakly, and worn-out shoots should, as before, be cut clean out, also some of the older ones and any others where they are too crowded, more particularly those in the centre of the plant. The object kept in view should be an even distribution of the shoots allowed to remain over the entire plant, except in the centre, which should be kept fairly open to admit light and air. In pruning the shoots may be left from 3 inches to 1 foot in length, according to the condition of the wood, the strength of the plant, and the object for which the blooms are required. Provided that the frosts of the previous winter months will allow, that the plants are sufficiently strong, and that the shoots are not permitted to become in any way crowded, the upper shoots may be as much as 3 feet above the ground. In this way good-sized bushes may in a few years be obtained, which will form handsome objects in the garden and yield a large number of good flowers. By similar treatment the more vigorous varieties in this and other sections may be induced to become pillar Roses, or even to climb some distance up a wall. It is the want of hardiness in many of the Roses of the present day that are usually grown as dwarf plants which alone stands in the way of their suitability for the formation of handsome bushes or for their employment as climbers and pillar Roses.

Hybrid Teas.—The pruning of the Hybrid Teas should be carried out on similar lines to those recommended for the Hybrid Perpetuals, only it should be less severe. Indeed, in the case of varieties like *La France*, which are of sufficiently strong growth to allow of this being done, better results are obtained by moderate thinning out and rather light pruning, as is recommended in the case of the Hybrid Perpetuals, where good-sized bushes are required.

Teas and Noisettes.—Owing to the tender character of their shoots, it is only after a mild winter that the pruner has much choice in the method of pruning. In any case, all the decayed, weak, and sappy shoots should be cut clean out, and where there are enough sound shoots left they should be shortened back one-half their length.

(To be continued.)

ROSE TEA RAMBLER.

THIS is an interesting climbing Rose, and one that I imagine will find many friends. Last season, upon a plant grown under glass, I counted as many as twenty-five clusters upon a single growth which was about 8 feet in length. Each cluster contained from seven to eleven miniature Roses, almost as pretty in shape

as that very lovely Rose *Rosette de la Légion d'Honneur*, but nearer to *Petit Constant* in colour. I have not yet proved the hardiness of this Rose, but from its sturdy appearance I should say it will stand a considerable amount of hard weather, but as a greenhouse climber this novelty would be an acquisition, and its foliage seems to be entirely proof against mildew. Such Roses as these would surely make charming tall standards.

MAKING SHY BLOOMING ROSES FREE.

THE beautiful fast growing rambling Rose *Rêve d'Or* is notoriously a shy bloomer until it develops into a huge specimen, but it occurred to me that we could bring such Roses into a flowering

should be tried. I think there are many cultural points that we have yet to learn.

P.

ARCHES OF ROSES ENCIRCLING THE ROSE GARDEN.

A SERIES of arches running around the Rose garden, as well as a few spanning the paths, would, I think, be a great improvement to the general effect. To catch glimpses of the mass of bloom in the beds through festoons of Roses would surely add an additional charm to the rosery, and the variety is now so abundant that harmonious blending is possible. A light structure of wire, high enough to be effective, could soon be covered with the rapid-growing *Dorothy Perkins* or *Lady Gay*, one or two *Crimson Ramblers*, the soft coloured *Helène*, and the fragrant yellowish white *Aglaia*, to say nothing of *Carmine Pillar*, the deliciously scented perpetual flowered *Mme. Alfred Carrière*, the almost evergreen *Reine Olga de Wurtemberg*, and hosts of others. If the Rose garden be well sheltered, a beautiful climber for an arch is *Rêve d'Or*, which is valuable both for its golden blossom and for its beautiful bronzy red foliage. Some of these varieties are apt to run to wood instead of blooming, and I am inclined to think that they need to be transplanted every other year for, say, five or six years. This tends to bring the plants into a blossoming condition, and more could be done in this direction if the roots were encouraged to keep near the surface. This again is quite possible when transplanting. It will never do to suppose that when a Rose is planted upon an arch it can be left to take care of itself. Those who practice the annual taking down in autumn, and removing old and superfluous shoots, will reap the greatest reward.

P.

TREES & SHRUBS.

GARRYA ELLIPTICA.

AS a hardy evergreen that is especially ornamental during the winter season, this Californian shrub might with advantage be grown far more frequently than it is at present. Specimens at this time of year that are large enough to flower have a singularly graceful appearance by reason of the long pendent catkins they bear. The leaves, which have a close resemblance to those of some varieties of the *Holm Oak*, are opposite, 2 inches long and elliptical, shining green on the upper surface and hoary beneath. It is from the axils that the catkins are borne, these being of a greyish green colour, and from 4 inches to 8 inches long, with the flowers almost enclosed by cup-like bracts. Although comparatively rare in gardens, this shrub has long been introduced, Douglas, the Horticultural Society's collector, having sent it home in 1828. It was named in compliment to Mr. Garry, at that time secretary to the Hudson's Bay Company. The plant bearing the catkins as here described is the male; the female is very



THE GARRYA AS A BUSH IN THE NURSERIES OF MESSRS. TRESEDER, TRURO, CORNWALL.

(This shrub is usually grown against a wall, but here its beauty as a bush is well shown.)

condition more quickly than is done at present. I advocate the lifting of such Roses every year for a period of five or six years. I do not mean to take them quite out of the ground and replant, but rather put a spade beneath the plants and just raise them, then return again, pressing the soil in so doing. I am persuaded this would have a very similar effect to what the same practice has upon fruit trees. Climbing *Devoniensis* and *Duchesse d'Auerstadt* are two other varieties I would treat in this way. Another plan would be to pot up some plants in the autumn and plant out next spring, planting them in their pots. I have seen plants only potted one year flower most freely. Everything that can be done to ensure the blossoming of these lovely Roses

rare and not so ornamental. As a rule this *Garrya* is planted against walls, but it is quite hardy in the open in the southern counties.

A FAMOUS HOLLY HEDGE.

THE most perfect Holly hedge that I have ever seen is that bounding the park at Tyntesfield, the residence of Mr. Antony Gibbs, a few miles from Bristol. Planted on a bank 3 feet high it extends by the side of the public road nearly two miles. In height it is about 4 feet, with almost perpendicular sides and an evenly-rounded top about 3 feet wide; it is so well furnished that it would be difficult of access at the base for even a rabbit. E. M.

A VALUABLE HARDY HEATH.

(*ERICA MEDITERRANEA*
HYBRIDA.)

THE hardy Heaths are among the most precious of winter-flowering evergreen shrubs. The term "shrub" is perhaps hardly suited for this low, tufted bush that is so full of flower from January to April; indeed, as the days lengthen so do its flowers strengthen and increase in beauty. That well-known Heath *E. herbacea carnea* is one of the parents of the plant above noted. The other parent is the equally well known Mediterranean Heath, also a good plant. The newcomer is somewhat more erect in growth and distinct by reason of the white-tipped shoots of summer. The great charm of the plant, however, is the endless array of flowering spikes that now adorn the foot high bushes, the branches spreading out and covering the soil. Quite hardy in this country this pretty Heath may be turned to excellent account for carpeting the surface of the ground where choice Lilies are grown.

E. J.

EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, W.C.

SWEET VIOLETS.

Mr. Thomas, in his note on Sweet Violets (page 101 of *THE GARDEN*) writes: "The plants

may be planted quite close together," i.e., in the pit or frame. This is quite contrary to my experience, as I allow my plants plenty of room, as then they get the full benefit of what little sunshine we experience in winter, and, having a freer circulation of air around them, are not so disposed to damp off. With regard to soil Mr. Thomas recommends this "to be of a poor nature." My treatment is different, as I give them a mixture of one part old potting soil and one of leaf-mould. This

A NEW TREE CARNATION.

From Courtbushes Nurseries, Hurstpierpoint, Sussex, Messrs. H. and J. Elliott send a flower of a new Tree Carnation called *H. Elliott*, a large, well-formed flower of brilliant cerise colouring, somewhat resembling Mrs. T. W. Lawson. The flower sent was cut six days before we received it, so that apparently it lasts well. Messrs. Elliott write that when first cut it measured exactly $3\frac{3}{4}$ inches in diameter, and had a rich Clove fragrance.

APPLE RYMER.

Rymer is an Apple not often seen or spoken about; why this should be I do not know, as it has long-keeping qualities, as well as a beautiful colour. It may not be a variety so suitable for small gardens, but where room can be given it is most serviceable. The tree is healthy and vigorous, bearing well most years. The enclosed specimens are from trees planted about thirty



CATKINS OF *GARRYA ELLIPTICA* (NATURAL SIZE).

(From a drawing by H. G. Moon.)

is placed in the pit, and not trodden or pressed at all, but kept as loose as possible. I do not know if Mr. Thomas has experience of growing Violets in the London district, where growers are terribly handicapped by London fogs, which are deadly poison to the Violet. Notwithstanding their suffering so much from fogs this winter, I have had a good supply of Marie Louise Violets since the first week in September, and am sending you a small bunch for your inspection.—W. G., Wimbledon Park.

[The flowers were very good. Marie Louise, in spite of the many new varieties, is still one of the most beautiful of Violets. Its scent is delicious, and the colour most welcome.—Ed.]

years ago, and are now at their best. Much has been said of late about imported Apples, and that these often sell before the English cannot be denied. A market Apple, in my opinion, must have two qualities, that is, colour and size, as the public needs something big and bright to look at, quality being the last consideration. Not that Rymer is above medium size, but it should commend itself by its good colour and the fact that it is in use from October to the end of March. This is a kitchen Apple, although not bad for dessert at this season of the year.—G. WALLER, Cock Crow Hill, Long Ditton, Surbiton.

[The fruits were excellent, clean, large, and brilliant crimson in colour.—Ed.]

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

GARDEN-MAKING. — In discussing this matter, if opinions clash, one may get out of a little difficulty by using the stereotyped phrase, "Oh! it is a matter of taste," and, so far as arranging the main features are concerned, it really is a matter of taste; and if the ground to be dealt with is only of moderate extent, do not try to work in very elaborate designs. After the many and varied garden designs that have been adopted and after a time discarded, it is pleasant to be able once more to see everywhere a return to simpler and more beautiful gardening.

"*The Common Things in Nature are the Most Beautiful.*"—I have borrowed this phrase from a book written by a French naturalist many years ago, because I have often felt its truth. The simplest-designed gardens are generally the most pleasing—an open lawn near the house, its boundaries hidden by tree and shrub growth, margined here and there with groups of flowering plants jutting out informally to give prominence to some special feature. A wall partly hidden by groups of shrubs and flowers may be there, disclosing fresh scenes and objects of interest created by choice trees, shrubs, and flowers at every turn.

The Old English Garden as I remember it in the past was often in many parts or sections, distinct, yet merging easily into each other, the chief idea being peacefulness. But there was room within its boundaries for various phases of gardening, the chief features consisting of hardy materials, including the pleached alleys of Bacon, Yew trees, hedges, and walks bordered by Yew trees, and lawns ornamented with spreading Cedars. In large places we had the French garden, with its fountains and statuary; the Dutch, with its tiled paths and fancy pots and tubs of little trees trained as standards. Myrtles, Pomegranates, and Oranges were plentiful. In those days we had numbers of the small-leaved Oranges, thickly laden with small, highly-coloured fruits, neat little standard plants that could easily be grown in 6-inch pots, and by judicious feeding could be kept healthy in that size for years. There were also large beds of Roses, all of one colour, and when pruning the long shoots were left for pegging down, so that the beds were always full. The varieties grown have now for the most part passed away, yet one's thoughts linger pleasantly over those masses of white and pink Provence, Maiden's Blush, the striped York and Lancaster, and others.

"*'Tis a Mad World, My Masters,*" and there have been mad things done in the garden. When under the influence of the bedding-out craze—I say it with regret—I have helped to dismantle several old English gardens, scattering many hardy favourites to make room for ribbon borders, carpet beds, and other arrangements for providing space for garish colouring. But that era has passed, and it has not been without its compensations, for our stocks of hardy plants, our Phloxes, Pyrethrums, Lilies, Delphiniums, &c., have never been so good as they are now. We may miss the old double white Rocket, but even that may be had.

There are Some Things that Never Change, and the chief of these is the necessity for good hard work in the preparation of the site. In the smaller villa gardens there is a tendency to scamp the preliminary work in preparing the beds for Roses, climbers, and other things. The walks,

too, in many places are merely a sprinkling of gravel on the bare earth, that in winter is always damp and weedy. The cost of most things has risen. The same money will not do as much work now as it did in the past, and the work is less well done all round. This often leads to failures, accompanied by a feeling of disgust, which have some excuse.

Fashion Changes, Often Suddenly; but it has had its beneficial influence upon the garden. It has given us the big Chrysanthemum, the Cactus Dahlia, and the Tufted Pansy, besides many other things of equal or greater importance, including the lovely Sweet Peas, which are found now in every cottage garden. Of course, the mere cultivator—the man who wields the spade and superintends the manure heap—has not been idle. Without the spadework and the manure heap there would be no flowers of superior size and colour. The flowers of the field are beautiful, but not equal to those in the garden.

Planting Marrow Peas.—The seeds of these are softer and less hardy than the early varieties of round and wrinkled Peas, and they sometimes fail if sown too early, but in well-drained land they may be sown once a fortnight from the middle of March till the first week in June. Afterwards bring the second early out again, and finish off with a few rows of first earlies on the south border the first week in July. These may not be a great success, but it is worth the risk. Plant Marrow Peas 3 inches apart on the bottom of 6-inch-wide drills 4 inches deep.

Mice in the Garden.—A good cat is the best mouse-trap, because it requires no setting, and a cat brought up in a garden soon gets to know its business, and clears off the mice and often becomes an efficient bird scarer. I dislike laying poison about. I once had a severe shock from the careless use of poison in a garden. But neither mice, rats, nor birds will eat seeds which have been dusted over with red lead. This is a poison, of course, but it may be safely used if the person who uses it is careful. First damp the seeds slightly, and then dust with red lead, stirring them about with a stick till all are covered.

Robber Shoots in Peaches and Nectarines.—Many of my amateur gardening friends grow Peaches and Nectarines on walls, and when the trees make long, vigorous shoots they rejoice that things are apparently going on so well. The experienced gardener, however, knows better, and when he observes those long, rank growths ramping away to the top of the wall he knows that the latter are only robber shoots, and are drawing the very life out of the rest of the tree. Just to show how mistakes are made as to which is the right and wrong class of young wood to have in a Peach or Nectarine, I may say that I quite recently observed an amateur pruning and tying in his trees. Every piece of rank, unripened wood was being carefully fastened back to the wall, and the worst was that the man was cutting out young pieces about the thickness of a lead pencil, which were nicely furnished with fruit buds, in order to make room for the useless material described above. It was a real disappointment to the grower when I pointed out that the shoots he prized the most were really useless. Everyone must bear in mind that Peaches and Nectarines are borne on wood of the previous season's growth, and the principle is to lay in as much of this as can be accommodated without overcrowding; but it is necessary to discriminate between fruiting wood of moderate

strength and gross robber shoots of the character described. Newly-planted young trees sometimes make a lot of rank growth, and when this is the case, the best course is to lift the specimens, shorten back the long roots, and replant them, as this is a means of checking the exuberance; but on older trees robber shoots never ought to be present at the time of the winter pruning. The reason is that they should be entirely removed from the trees while the leaves are on them in the summer. Every day that they are allowed to grow these robber shoots are drawing something from the tree, and though the most vital error is that of allowing them to remain indefinitely, it is best to remove them before they have had time to take the strength from the fruitful parts of the tree.

Success in Grafting.—This depends in a much greater measure than is supposed upon having the stock and the scions in the right relative condition. The sap in the stock must be in full flow upwards, and the buds of the scion or graft should be dormant. When the two cut surfaces are properly adjusted, with the edges of the bark of each meeting and bound firmly together, and clayed or waxed so that air cannot penetrate, most of the grafts will grow, even if the operator should not be an expert.

Primula obconica.—This plant has been accused of irritating the skin of certain thin-skinned persons, but the number of those who suffer inconvenience is, I think, not large, and the plants are so useful and beautiful, especially in winter, that they are not likely to disappear. The seed of this plant is very minute, and it does not retain its vitality very long. I have in the past bought a good many packets of seed, some of which grew and others failed altogether, which proves, I think, that home-saved seeds of this plant are best, especially as seed-saving in this case is so easy. As an experiment last season I sowed the seeds obtained from one small pod, and 128 flowering plants were obtained from it.

Figs in the Open Air.—Given a warm sunny corner, either on a building or wall, a well-drained site where means have been taken to keep the roots out of the subsoil by what is termed station planting, by the use of concrete or in some other way, a crop of Figs would be assured. Away from the South Coast it may be necessary to untrain the branches, draw them together, and protect with mats or evergreen branches at the approach of frost, the protection to be removed early in March, and the tree pruned and trained.

The Pruning of Figs will be done to a large extent, as it is with most other trained fruit trees, in summer, and will begin with disbudding when the young shoots are quite small or not more than 2 inches or 3 inches long. The young shoots on open-air Figs are not stopped, as no second crop will ripen. The Fig tree has large foliage, and the growth must be kept thus so that the wood may ripen. As the young shoots grow, secure them to the warm face of the wall and expose the fruit to the full influence of the sun.

Champagne Rhubarb for Forcing.—A trial of early varieties of Rhubarb has been conducted by a friend, a market grower, this spring, in order to find out which was the most remunerative and best to force. The result proved that the above old sort was by far the best in every way. The colour, quality, and productiveness were everything that could be desired, and his customers would have no other sort whilst this was to be had.

E. H.

GARDENING OF THE WEEK.

FLOWER GARDEN.

FOR filling up both borders and beds of perennials during the summer months it is necessary to sow now various seeds of tender and other annuals in heat.

FIBROUS-ROOTED BEGONIAS (*B. semperflorens*), now so deservedly popular, may be sown. They are not so long in germinating, and grow much more quickly than the tuberous ones, so that they will be quite as large at the planting time as the latter that were sown two months earlier. If sown now *Marguerite* Carnations will bloom profusely during late summer, forming a good succession to perennial varieties. To bloom freely the same season *Dianthus* of the *Heddewegi* type must be sown and grown on quickly. It is time for sowing *Petunias*, *Nicotianas*, *Nemesias*, *Delphiniums* (annual), *Salvias*, *Verbenas*, *Centaureas*, *Lobelias*, *Alonsoas*, *Gaillardias*, *Phlox Drummondii*, *Coreopsis*, dwarf *Nasturtiums*, *Sunflowers* (especially the small-flowered kinds), and many others. For the

ROCK GARDEN the following will be found useful where the soil is thin, and be a pleasing change: *Ionopsidium acaule*, *Leptosiphon*, *Lotus peliorhynchus*, *Portulaca*, *Erinus alpinus*, *Verbena venosa*, Iceland Poppies, &c. Most of the above should be sown in moderate rather than strong heat. The seedlings should be gradually inured to cooler quarters for pricking out and planting. Through exigencies of circumstances it will be advisable in many cases to sow hardy annuals, &c., in boxes or prepared beds close at hand for observation, instead of where they are to bloom. Many would probably succeed better so than being moved, but the well-known fondness of snails and slugs for tender succulent seedlings renders it imperative to have them under close surveillance. They should be sown in cold pits or the open, and as the seedlings become fit for handling prick them out into prepared soil, shallow, and on a hard bottom, or into boxes for convenience of moving subsequently. Prick out either singly or in small tufts, the latter being the most satisfactory method for many. Of course, where slugs and other enemies can be kept under, by all means sow where they are to flower, paying timely attention to thinning out freely before the seedlings become drawn. If from any cause there are still arrears in dividing and replanting

HERBACEOUS AND PERENNIAL PLANTS, they must be brought up and completed without further delay, for growth is becoming active. Having finished planting and levelling the surface of the borders, sow *Mignonette* broadcast, but thinly, among the taller growers, more especially if near the house; it will help to carpet the ground, and in due time the perfume will be very pleasing.

TRIM LAURELS AND OTHER SHRUBS that need keeping within bounds, but avoid the clipping shears. Personally I prefer doing this work in alternate years, except the cutting out of an odd gross shoot, for by cutting the two year old wood well back the remaining spray hides the cuts, and the objectionable stubbiness is done away with to a great extent. Clip Ivy hard and close on walls and buildings; at this season fresh growth will quickly clothe the bareness. Cut back to a few eyes *Golden Elder*, *Purple Hazel*, *Paulownias*, *Hydrangea paniculata*, *Leycesteria formosa*, and all such as are improved in growth of leaf, depth of colour, or size of bloom by such an operation. J. ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

WHILE there is always plenty of work to be found in a garden, with the advent of March and lengthening days the work increases. Have blinds fitted to the houses ready for use. Houses containing newly-potted plants require keeping a little closer for a time to encourage root action in the new soil. On favourable days give plenty of air to *Calceolarias*, *Pelargoniums*, and *Marguerites* coming into flower. Autumn-rooted plants of the latter are ready for potting on. Remove the lights from Violet frames on warm days. Abundance of flowers should now be rewarding the grower. Remove decayed leaves, and an occasional watering will be necessary. Many seeds can now be sown; *Balsams*, *Cock's-combs*, and *Celosias* may be sown in heat. Those having only cool greenhouses should sow tuberous-rooted *Begonia* seed; the seedlings will make small bulbs for flowering the following year. Seedlings of many things sown in January are ready for pricking out or potting off. *Shallow pans* are the most suitable for *Gloxinias*, *Begonias*, and *Streptocarpus*. Keep them near the glass in a warm house. Syringe several times on bright days. The present time is suitable for inserting cuttings of plants somewhat difficult to root earlier in the year. Also insert cuttings of *Bouvardias* and *Lantanas*. The pretty double white *Petunia* Mrs. Jeffery should be potted on as soon as ready. This plant should be in every collection of cool greenhouse plants; it is very easily grown, and lasts a long time in flower.

CHRYSANTHEMUMS.—After potting place these in a light position close to the glass in frames from where frost is excluded. Keep close for a few days after potting, and syringe once or twice on bright days. Cuttings rooted now make very useful plants in 6-inch pots by the flowering season. For growing in this way the dwarf free-flowering varieties should be selected. Pinched once or twice they form compact, bushy plants.

PALMS.—These should be repotted or put in fresh tubs if necessary. A mistake is often made in overpotting Palms. It is surprising what large specimens can be grown in comparatively small pots. Except with the

smaller specimens they can remain several years in the same pots if top-dressed annually.

CAMPANULAS.—Divide or pot on *C. isophylla* and its varieties. Cuttings can also be inserted if a large stock is required. Three parts fibrous loam, one part leaf-mould, and a little broken mortar rubble and sand will be found a suitable compost. Keep the plants in a cool house or frame, and do not coddle in any way. They also make excellent subjects for baskets. *C. pyramidalis* should be potted or top-dressed as required; sow seeds to obtain plants for next year. *C. Vidalii* is a very useful plant, not grown nearly as much as it deserves; it requires only protection from frost in winter. It is easily raised from seed, and is best if treated as a biennial.

Royal Botanic Gardens, Kew.

A. OSBORN.

ORCHIDS.

DENDROBIUMS.—At this season many species of *Dendrobium* and their hybrids form the principal attraction in the Orchid houses. It will be noticed that many of the plants are starting into growth, but the cultivator should not be tempted into giving them too much water at the root, or some of the young shoots may turn black and decay. The plants should be kept moderately dry while in bloom, but not so dry as to cause the pseudo-bulbs to shrivel. A few of the earlier-flowering ones that have gone out of bloom and have their growths well advanced should be either neatly top-dressed or, if they require it, be repotted. In either operation a moderate share of the old soil should be carefully picked out. *Dendrobiums* root freely in fibrous peat and sphagnum moss, using rather more moss than peat, and adding a moderate quantity of small crocks and coarse silver sand, well mixing the whole together.

PROPAGATING DENDROBIUMS.—It is now a good time to commence to propagate any sorts wanted in large numbers, especially the rarer ones; in fact, it is advisable to propagate a few plants of each variety every year and to grow them on as quickly as possible, so as to take the place of the older plants as they become useless from various causes. I have had most satisfactory results by propagation in the following manner: Cut off some of the old back bulbs, preferably those that have failed to bloom, and lay them down on some fresh live sphagnum moss in a hot and moist propagating frame. Equally good results may be obtained by cutting the bulbs into various lengths and inserting them in pots filled with a mixture of sphagnum moss and sand, placing them in a hot, moist corner of the warmest house. Strong plants may also be had by inserting the pieces of bulbs into the surface moss, in which such Orchids as *Aerides*, *Saccolabium*, &c., have recently been reported. When the young growths, which appear upon the stems, commence to root they should be separated and potted in moss only. Sometimes aerial growths are produced upon the old pseudo-bulbs, and these should be taken off when only a few inches high and potted.

THUNIAS.—*Thunia Marshallii*, *T. Bensonii*, *T. alba*, *T. pulchra*, *T. candidissima*, and the pretty hybrids *T. veitchiana* and *T. brymeriana* are deciduous plants, and they naturally have a decided rest during the autumn and winter. These *Thunias* are beginning to push up new growths from the base of the pseudo-bulbs, and should now be shaken out and repotted. The general and most convenient way is to plant six or eight bulbs about 3 inches apart in a good-sized pot, which should be half filled with drainage, over which place a layer of turfy loam. The roots will find out the loam, to the benefit of the plants, about the time the flower-buds show. The potting mixture should consist of peat, loam, sphagnum moss, and some small crocks and coarse sand. When potting keep the base of each young growth on a level with the surface of the soil, and each bulb will require a stake to hold it firm. Place the plants in the lightest position available in the East Indian or *Dendrobium* house, near the roof glass. At first, on account of the small number of roots, the plants should be watered very sparingly, but gradually increase the supply of water, and plenty of heat must be given. When the plants are thoroughly re-established and the roots have pushed through the compost, an occasional dose of weak liquid cow manure is beneficial to them. All these *Thunias* may be readily propagated by taking off the back bulbs about June, cutting them at the joints into lengths of about 4 inches to 6 inches, and inserting them firmly as cuttings in small pots well drained, using a mixture of chopped sphagnum moss and coarse silver sand.

Burford Gardens, Dorking.

W. H. WHITE.

FRUIT GARDEN.

POT VINES.—The Vines which were started in November are fast swelling their fruit, and now require feeding. Stimulants may be given with every alternate watering. There is nothing better than liquid manure from the farmyard, but Thomson's Vine Manure or *Le Fruiter*, either in liquid form or as a top-dressing, may be given occasionally as a change. Manures must be discontinued as soon as colouring commences. If the fermenting material declines below 70° it should be turned, adding a little fresh litter with it.

EARLY PERMANENT VINES.—All surplus bunches should be removed as soon as it can be seen which are the best, leaving the most compact and best placed to furnish the crop. Thinning the berries must receive early attention. This is a work requiring much care and skill. One must have in mind the characteristics of each particular variety in carrying it out. *Black Hamburg* is a variety of loose habit, and should not be thinned to the same extent as most other varieties.

MID-SEASON VINES.—Attend to the disbudding of these as early as possible. All weak, useless shoots may be

rubbed off at once. I do not advise the method of one shoot to a spur, but leave sufficient growths to ensure a good spread of foliage without crowding. Do not let the borders become dry, and give tepid water. The latest *Muscats*, if not already started, should not be further delayed, as the bunches require a long season to finish perfectly. This point is influenced a great deal by the conditions in which the Vines are growing. A light, lofty, well-ventilated structure, with inside well-drained borders and a good supply of hot-water pipes, are important factors towards successful culture, and one would not hear so much of bad "setting" and bad finish if these conditions were present. All late Vines must now be started. *Lady Downe's* and *Gros Colmar* require a longer season than *Alicante*, and should be in the warmest end of the house. Give the borders a top-dressing of fresh loam, which has been enriched by the addition of wood ashes, brick rubble, and Bentley's Vine Border Compound. If roots are plentiful a thorough watering with liquid manure will be of great benefit.

MELONS.—Plants raised early in January and grown on the cordon system should be stopped when halfway up the trellis. This will encourage the growth of side shoots and hasten the plants into flower. Do not commence fertilising the flowers till two or three are open on each plant. This will encourage the fruits to develop together, and ensure an even crop. Make fresh sowings as required. Ripe fruits can be cut in twelve weeks from the time of sowing at this time of year. E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

SEAKALE is indigenous to many of our seashores, but so far I have not discovered it by the Solway. As a spring vegetable Seakale is much appreciated, making a welcome change from winter green and Broccoli. For many years my system of cultivating Seakale has been from root cuttings. When lifting strong crowns for forcing, medium and smaller ones are cut 4 inches long, retaining the crown end only; these are laid in sandy soil till wanted for planting. Select a piece of ground for this purpose deeply dug and well manured. Should the soil be of a heavy nature, some of a lighter kind should be put underneath and around the sets when planting. Plant these firmly and alternately in the rows 2 feet apart each way, and level with the surface. During summer weeds must be scrupulously kept down, and the Dutch hoe occasionally used between the drills. After heavy rains copious supplies of liquid manure will furnish excellent food for the Seakale plants. For Seakale for blanching where grown the sets are planted in clumps of three, leaving from 6 inches to 8 inches between each set, 3 feet between the rows, and 2 feet 6 inches from clump to clump.

RADISHES.—At this season a sowing of Radishes may be made on a sheltered border. To obtain crisp and juicy Radishes they must be grown where the soil is both rich and deep. Richness of the soil will hasten growth and retain the necessary moisture. Radishes grown on poor, dry ground soon become tough and uneatable. For a first sowing outside I consider Wood's Early Frame a good variety. To keep up a succession of good Radishes a small sowing should be made at intervals of ten or fourteen days.

CELERY.—If desired for early or exhibition purposes, a little should now be sown in a well-drained seed-pan, filled to within an inch of the top with equal parts of good loam and material from a spent Mushroom bed. Make fairly firm and moist before sowing the seed, which distribute evenly and not too thickly; cover with fine soil, and place in a temperature of about 65°. When the seedlings make their appearance watering must be carefully attended to, as the least approach to dryness will most seriously injure the growth of this moisture-loving plant. Sutton's White Gem and Solid White are excellent varieties for early use, both being crisp and of first-rate flavour.

TURNIPS.—Early sowings of Turnips are chance crops at the best, and where the district is bleak this operation had better be delayed for ten days or a fortnight. In favoured localities a sowing may now be made on a sheltered, sunny border. Early Snowball is a good sort for a first venture. On a fine day, with the ground in favourable order, draw out drills 15 inches apart and 1 inch deep. Make the soil very fine before sowing them.

CARROTS.—To succeed frame-grown Carrots, a few Early Nantes or Early Horn may now be sown. Choose a fine, calm day, when the ground is thoroughly dry. Sow broadcast on beds, and cover with equal proportions of fine soil and wood ashes. J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

THE KITCHEN GARDEN.

TURNIP EARLY SNOWBALL.

FEW vegetables have found more favour among growers than this. It is medium in size, handsome, and of the best possible quality, which is a strong recommendation. The value of Snowball at this season is its earliness, shape, and quality for forcing or frames. I should place Sutton's White Gem before it, but my note does not touch forcing, although I have grown



TURNIP EARLY SNOWBALL.

Snowball in frames and on hot-beds. Given protection in various ways it forces well, but its great merits are as an early root on a sheltered border and for first crop in the open. Grown thus its excellence is seen at a glance; no other early Turnip is so white, solid, and delicately flavoured. It is very free from coarseness, and poor or badly formed roots are few in number. It is compact in growth, has a short top, and a clean single tap root, which many others have not. Owing to its perfect shape and well-known good eating qualities Snowball is much grown for exhibition. In some gardens Turnips are disappointing; they are sown too early and bolt, and in others the soil needs greater care in cultivation. I well remember many years ago having a stiff heavy clay soil upon which it was impossible to get early roots, as it could not be got into condition, but we had a great quantity of trees and garden refuse. By burning this and placing it on the surface we secured the surface material just suited for the work, and with persistent labour the results well repaid for the cost entailed. In some gardens many growers from February to July sow early varieties, and by so doing get excellent results. It is a good plan, as there is always a succession of usable roots at command, the crop being quickly cleared. The value of such sorts as the one illustrated is then apparent.

In the supply of roots for the whole year Snowball will play an important part. The first sowing may be made in February and continued till July or August. The old system was to sow in March and in July or August, with the result that the roots were coarse, pithy, or flavourless. What I do advise is frequent sowings, not necessarily large ones, and varieties that will keep well into the spring. In our own case we do not despise the yellow-fleshed sorts for use at this season, the most difficult period of the year to bridge over. The value of these roots is better known in the northern parts of the country than the south, and with care they may be had good well into the spring. Where it is not possible to grow Turnips in frames I would advise sowing Snowball on a warm border in well-prepared light rich soil. We made other sowings every month till the end of September, the variety of the last sowing being Golden Ball or Malta. This, though small, keeps sound in our light soil for some months. For storing there are few better Turnips than Red

Globe. When sown in August it will give roots for the winter supply when given cool storage in December. Medium solid roots of the best quality are desired. It will be seen that by sowing as advised there will be no lack of tender roots, and at no greater cost as regards seed, as often this seed is sown much too thickly. There are difficulties in July or earlier in dry years, and it is well to make a larger sowing earlier. A good one in April or May is usually reliable, and again in August or September. Much depends upon the demand, but even in small gardens it is far better to have a regular supply of young fresh roots by sowing more frequently.

G. WYTHES.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

NAMES OF PLANTS.—*Mac.*—*Hardenbergia monophylla*, a native of Australia.—*Bradford.*—*Nidularium Meyendorffii.*—*A. E. S.*—*Oxalis cernua.*—*Adderbury.*—*Galanthus plicatus.*—*Mrs. A.*—*Galanthus byzantinus.*—*Ardgour.*—*Daphne Laureola.*—*E. A. B.*—*Acacia lineata.* The Mimosa of the florists' shops sent in such large quantities from the Riviera is *Acacia dealbata*.

NAMES OF FRUIT.—*S. Clark.*—1, Round Winter Nonsuch; 2, Winter Peach; 3, Lamb Abbey Pearmain; 4, Easter Baurré.

VIOLET PLANTS DYING (*Thorne*).—We do not remember ever receiving so many complaints of

the failure of Violet plants as we have this winter. We think that in part, at any rate, the trouble must be attributed to a greater prevalence of dense fogs. Nothing is more inimical to the well-doing of the Violet than fog or a close and vitiated atmosphere of any kind. But we think that in the case of the sample received from you some other cause must be held responsible as well. The soil in which the plants were growing appears to be exceedingly poor, and that portion which adhered to the stem was dust-dry, suggesting the thought that dryness at the root may have had something to do with the failure. You say there are no wireworms in the soil. The punctured and wounded appearance of the stem gives one the impression that the soil must at one time have contained some destructive insect. If the plants are dry at the roots they should receive copious waterings, adding a slight top-dressing of fresh loam and leaf-soil. Give plenty of air night and day while the weather is fine, protecting only from frosts and very rough weather. The full size of a croquet lawn is 105 feet long by 84 feet wide. The flower sent was *Astrantia major*.

EARLY SUMMER CREEPERS, &c. (Poppy).—Plant in pots or boxes of good soil young plants of Ivy Pelargoniums for trailing, and either procure plants or sow seeds of *Tropæolums* in variety, Canary Creeper, *Lophospermum scandens*, or even Sweet Peas. These give excellent variety, and are easily managed. A capital plant for later summer is *Campanula isophylla alba*, and *C. i. Mayii* is a pale blue form of this. Both are readily obtainable in spring, and they last a long time in perfection if cared for in the matter of watering, &c.

MARGUERITES UNSATISFACTORY (Mac).—It is impossible for us to assign any reason why your Marguerites have behaved in the way stated. Perhaps they were rooted through the bottom of the pot, and in moving them the roots were broken; yet this can hardly be if, as you say, the roots were not disturbed in any way. The soil cannot be at fault, as the cuttings potted at the same time are doing well. We assume that they were safe from frost, as their behaviour would almost suggest that they had been frosted.

GRUBS ON VINES (J. C.).—The small white insects which you found on the roots of your pot Vines are the grubs of a small two-winged fly. They probably do not do much harm to the roots unless they are present in considerable numbers. They appear to be nearly full grown, as one has become a chrysalis. It is difficult to suggest any insecticide, as if one were used of sufficient strength to reach and kill the grubs it might injure the roots of the Vines, and if the grubs are just on the point of becoming chrysalides, it is not worth while taking much trouble about them, as they will then be in a harmless condition.—G. S. S.]

PRESERVING ANIMAL MANURE FERTILITY (Subscriber).—Professor J. Long, in the article you refer to, is perfectly correct in his statement that farmers, by their methods of treating accumulations of animal manure, waste its fertile properties immensely. Market growers about London or other large towns who accumulate large quantities of stable manure in their fields are just as wasteful. The manure heats, and in so doing liberates ammonia (nitrogen) wholesale, and that escapes into the air. Then, again, other elements of fertility—phosphates and potash—are washed out of the manure by heavy rains. Then, when the manure is spread over the land and buried into it, not less than from 30 per cent. to 40 per cent. of its real fertile properties is lacking. The proper way to treat all animal manure is to house it under mere roofed sheds, turning the heaps frequently so as to prevent fermentation, wetting it well when it becomes dry, and having an asphalt floor with drains leading the waste liquid to a cistern, where it is collected and used. It is a good

plan at the first of such turnings to mix with the manure artificials at the rate of about 10lb. to 12lb. per ton, as the whole soon becomes absorbed in the animal manure. Soot is also good, but not lime, as that liberates ammonia and causes it to escape. It is not wise to bury quite fresh or raw manure into the soil; much better put it into a heap as advised and keep it turned until well mixed and in a condition of semi-decay. The roots are then so much sooner enabled to utilise it. Stable manure in a fresh state often contains one-half of long straw, and that takes long to decompose. If treated as advised before it is applied to the soil it so much sooner becomes plant food. You can plant your heavily-manured land with shrubs at once, but you may find later that a heavy dressing of manure has been conducive to much coarser growth than you bargained for.

ROSE EXHIBITION BOXES (A. B.).—There is no regulation depth for the lid, but it is always advisable to have a good depth—say, about 9 inches—as this allows one to mount the blooms well upon the wire supports, and this is a detail of considerable importance. Every exhibitor should also possess a spare box, in order to enable him to carry a number of young blooms should any of those selected expand too much during the journey. A good convenient size is 4 feet long, 2 feet wide, and 1 foot 3 inches deep. Tubes about 1½ inches in diameter are fastened into the bottom of this spare box. Two, three, or more blooms can be placed into each of these tubes. The standard sizes set up by the National Rose Society are as follows: All boxes must be 4 inches high in front and 18 inches wide. For twenty-four blooms, single trusses, the box should be 3 feet 6 inches long; for eighteen blooms, single trusses, 2 feet 9 inches long; for twelve blooms, single trusses, 2 feet long; for nine blooms, single trusses, 1 foot 6 inches long; for six blooms, single trusses, 1 foot long; for eight trebles, the same as for twenty-four singles; for six trebles, the same as for eighteen singles; for four trebles, the same as for twelve singles—all outside measurement. For forty-eight blooms two boxes for twenty-four are used, and for thirty-six blooms one twenty-four box and one twelve box, and so on.

SOIL FOR CYPRIPIEDUM INSIGNE (B. F. Hull). Cypripedium insigne requires a good retentive compost, such as one made up of two parts good fibrous loam, one part good peat, and one part good Oak leaf-soil. Mix the whole together with some coarse sand and small crocks about the size of Peas to keep the material open. In potting give a good drainage of chopped sterilised rhizomes over one or two bottom crocks. The amount of drainage necessary is best decided by the individual grower; remember that a well-rooted plant in a small pot does not require so much as a divided piece, or one that has deteriorated would. In the two latter cases half filling the pots will not be too much. When potting keep the soil well below the rim of pot and surface to the depth of 1 inch with live chopped sphagnum put on rather firmly.

VARIOUS QUESTIONS (L. W. A.).—1. Scarify the turf with a strong iron-toothed rake to remove the moss, then top-dress the lawn with a mixture of rich soil containing some old manure, a little lime, and, if possible, some wood ashes or charred garden rubbish and soot, at the rate of two barrowfuls of the mixture to the square rod; spread it evenly, and leave it for a time for the weather to act upon it. In March sow a mixture of grass seed and white Clover, somewhat thickly, and roll. Do not mow till the seeds have made some growth. Skim it over first with the scythe, and afterwards use the machine. If the work is properly done there ought to be a good lawn during summer at a much less cost than breaking it up and re-sowing. 2. The following hardy plants will be suitable. Dig in some manure or

manurial compost, and plant in March *Galega officinalis* (white and purple), *Gaillardia grandiflora*, *Erigeron speciosus superbus*, *Delphiniums* in variety, *Doronicum austriacum* Clusi, *Chrysanthemum maximum grandiflorum*, *C. uliginosum*, *Campanulas* in variety, *Asters* *Nora Belfie*, *Arthur Head*, *A. Snowflake*, *A. turbinellus elegans*, *Anemone japonica* (pink) and *alba* (white), *Alyssum saxatile*, *Anchusa italica*, *Achillea Ptarmica* the Pearl, *Coreopsis grandiflora*, *Gypsophila paniculata*, *Helenium pumilum*, *Helianthus multiflorus*, *Inula glandulosa*, *Lobelia syphilitica*, *Lupinus polyphyllus*, *Papaver orientale*, and *Rudbeckia californica*. 3. Place leaves in a heap, saturate with water, and cover with soil.

NAMES OF ROSES (Bulgy).—Plant *Grüss an Teplitz* (crimson), *Climbing Mrs. W. J. Grant* (salmon pink), *Gloire Lyonnaise* (white, lemon centre), *W. A. Richardson* (orange), and *Mme. Plantier* (white).

PLANTS FOR YARD (S. P.).—*Hydrangea paniculata grandiflora*, *Ceanothus Gloire de Versailles* (both shrubs), *Lilium croceum*, *L. pardalinum*, *Galtonia candicans* (white), *Sweet Peas* (sow seeds now), and *Nicotiana Sanderæ* (sow now).

POTTING BENCH (B. T. E.).—Have it 4 feet high and 3 feet wide, of deal wood 1 inch thick. The top must be planed. The price would depend upon the length you require. It would not be much, however. You had better get a local carpenter to supply it.

MOSS IN LAWN (B. L. S.).—This is generally a sign of poor soil, and sometimes shows that the latter needs draining. First well rake the surface to stimulate the growth of the grass and to draw out as much moss as possible. Yes, wood ashes mixed with soil as a top-dressing would do good; it contains potash. We do not think you could buy wood ashes. If you have not enough wood ashes why not purchase a little special lawn manure. Some two or three weeks after top-dressing grass seeds should be sown. They will fill up the lawn and prevent the growth of moss.

CREEPER FOR WINDOW BOX (Junior).—You could not plant anything more suitable than the small-leaved Virginian Creeper (*Ampelopsis Veitchii*) if you want a permanent climber. If you are satisfied with annuals, *Sweet Peas* would make a very good display if you gave them manure when well rooted. We should advise your trying these this season. Sow now. *Clematis Jackmani* would probably do well also.

A PERFECT TREE CARNATION SOIL (Montis).—The best compost for Tree Carnations is a medium clay loam, the top spit of an old meadow, or any grass land. This should be taken from a heap that has been stacked up for about six months. To four parts of loam add one of decayed stable manure and one of leaf-mould, with some ground oyster shells. I do not know if Carnation soil has been analysed, at least I do not find any analysis in the Carnation manuals published in England and America.—J. D.

STERILISING SOIL FOR CARNATIONS (Faust).—The steam to sterilise the soil can only be supplied by a boiler of some kind. The steam is carried under the soil by inch pipes, holes are drilled into the pipes at 8 inches apart, and short pieces of pipe have to be fixed to these holes with sockets. The openings must be at the sides of the pipes. The ends of the pipes furthest from the boiler are to be stopped. When the steam is turned on the apparatus will sterilise about 8 inches on each side of the pipe. The pipes should be about 8 inches under ground, and the steam will raise the temperature of the soil in the vicinity of the pipe to 200° Fahr. The steam should blow into the pipes for about twenty-five to thirty minutes. When this portion is heated remove the pipe to another part

of the soil until it is all heated. Some persons heat a good sized copper and fill this with soil, and keep a fire under until the desired temperature is obtained; but this, of course, to a considerable extent impairs the fruitfulness of the soil by destroying the nitrifying bacteria necessary to plant growth. None of the successful Carnation growers sterilise their composts in this country. It is done in America, where enormous quantities are grown on benches for cut flowers, and can be easily carried out where the houses are heated by steam. The soil is covered with a coating of sacks, or any thick material of the same kind, to keep the heat in. Unless this was done the surface soil would not be heated sufficiently. I advise "Faust" not to trouble himself with the steaming process; it does not seem worth doing, unless, by way of experiment, to ascertain whether the results were better from steamed or unsteamed compost.—J. D.

LAYING OUT GARDEN (M. H. Gillett).—1. Yes, you might use China Roses or the Scotch Rose, *Gloire des Polyantha* (rose), *Corallina* (coral red), or *Mme. L. Messimy* (rosy pink). If you have China Roses plant the common pink and crimson in a double row, the plants 15 inches apart. 2. Against the wall plant *Roses Reine Marie Henriette*, *W. A. Richardson*, *Gloire de Dijon*, *Prunus triloba*, *Jasminum nudiflorum*, *Chimonanthus fragrans*, *Wistaria sinensis*, *Pyrus japonica*, and *Ceanothus veitchianus*. The *Wistaria* or *Rose Reine Marie Henriette* would cover the slates. 3. *Rose for Laburnum*: *Mme. Alfred Carrière* (white). 4. In addition to those you mention *Spiræa Aruncus*, *Michaelmas Daisies*, and *Helianthus*. 5. Yes, those you mention would do, also *Antennaria* and *Achillea*, both with grey foliage, *Christmas Roses*, *Pinks*, *Saxifragas*, bulbs of sorts, as *Daffodils*, *Snowdrops*, *Scillas*, &c.

LAWN AND RED SPIDER (X. Y. Z.).—To destroy red spider (which is evidently what your plants are infested with) syringe with the following solution: To ½ lb. of flowers of sulphur and 1 lb. of fresh lime, boiled in two gallons of water, add afterwards ½ lb. of soft soap, and when all is well mixed add 2 gallons more water. If your lawn is very rough apply sulphate of ammonia and nitrate of soda, mixed together in equal quantities, at the rate of 1 lb. per rod of land. It is better to mix the manure with four times its bulk of soil a fortnight before using. The application of this forces the growth of grasses and clears out Clovers and keeps down Dandelions, &c. If you give a good dressing, then sow some good seed, and attend well to mowing and rolling, the lawn should improve. If not, next autumn you should relay the worst of it with good turf, or else turn it over, level, and sow in spring with the best seed.

DENDROBIUM NOBILE (B. F. Hull).—A good compost consists of two-thirds good sphagnum chopped up a little and one-third good fibrous peat which has had the dusty parts taken from it, mixed together with a fair quantity of coarse sand and small crocks. Ordinary pots are preferable to those that have side holes. Place a few crocks over the bottom, and fill the pots to the depth of one-third with chopped rhizomes in the case of healthy plants, using more if they are otherwise. If the moss used in the compost is good no more need be added in surfacing, but on no account should you ever surface with dead moss.

GUANO AS MANURE (J. G. R.).—Several manures are sold under the name of guano, and unless we know the true quality of what you have it is difficult to say in what proportion it should be applied to the ground. True Peruvian guano, now a scarce article, is a good dressing at 5 lb. per rod; but of native guano the dressing should be 15 lb. per rod at least. It is a pity you have not had the ground dug during the winter. Your best course will be at once to have it deeply dug to enable the air to sweeten

it. Then a few days later distribute over the surface the guano at the rate of from 5lb. to 6lb. per rod, and have it well forked in so as to mix it with the soil. Each of the crops named needs manure liberally; but Celery may, when trenches are prepared, receive an additional dressing of guano strewn along the trenches and well mixed before planting. Most of these artificial manures need several weeks to enable them to decompose before they can be utilised by the roots of crops.

POULTRY MANURE (C. L.).—This material has very high fertilising properties, and applied fresh is hot and apt to injure roots of plants. The best way to deal with it is, as it gradually accumulates, to mix with it just about double its bulk of soil, obtained from any outer source or from the garden. Let it lie in a heap for some two or three months, using as needed from the end of the heap longest accumulated. During the lying the soil absorbs and equalises the manure's fertility, and is not therefore applied too strong. We like to mix liberal dustings of soot with the heap as now and then turned to secure complete absorption as these help to destroy insect life. Poultry manure owes much of its fertility to the fact that fowls are so largely fed on corn, hence it is rich in phosphates; pigeon manure is equally so. Its chief defect is absence of fibrous matter, such as is found plentifully in stable manure. So treated use it for any plants moderately.

BIRDS AND FRUIT-BUDS (W. S. F.).—As the birds have already done such mischief to your fruit trees and bushes by destroying the fruit and leaf-buds, nothing of any use can be done to avert the harm now. May you not use a gun to shoot or frighten the predators, doing that in the early morning? The best course for all purposes is to obtain a quantity of small mesh fish netting, and so cover all trees and bushes as soon as the leaves have fallen. No protection is so good. Failing the netting get some dry clay, mix with it paraffin and soft soap, and to half a pint of paraffin and 1lb. of soft soap, with enough clay to thicken, add 5 gallons of water. With that very gently syringe the trees and bushes, and at once, whilst damp, smother them with fresh-slaked lime or soot, or both, so as to coat the buds and make them nasty. This dressing may need repeating after heavy rains, and is at the best but a palliative. We know from experience that birds' mischief is very trying and destructive.

WEAK POT VINE (R. M. G.).—Your Black Hamburgh Vine in a pot 8½ inches broad will not fruit in the pot, or, indeed, would not do so in a larger pot except really good loamy soil could be furnished to it. Even then you would have to cut the Vine close to the soil, and thus compel it to make an entirely new and much stouter rod than is the present one. Of course, that rod would not produce fruit until next year. If you purpose planting the Vine out into a border, shake the roots free from the soil of the pot and open them out flatwise. Do not plant deeply; the roots need not be more than 3 inches buried. The soil of the border should be composed of good stiff old pasture loam, just a little old hot-bed manure, some wood ashes, mortar refuse, and finely crushed bone. A sprinkling of soot may be added. Plant as soon as possible; then a fortnight after planting cut the Vine down to within 12 inches of the soil, and thus compel it to make a new rod this season. A border 4 feet square will do for the first year.

VIOLETS UNSATISFACTORY (A. P., Newport).—We have read your letter and carefully looked over the sample of plants sent. The remedy we would suggest, in the first place, is to dig up the old plants early in April. Shake all the soil off, and then select the best and strongest offshoots (from the old plants), with some roots attached if possible, and plant about 4 inches apart in soil prepared as for cuttings. Plant them deep enough for the base of the young offset to be slightly

embedded in the soil, as it is from the base that the best roots will form. Choose a sheltered and shady position and plant them firmly. The young plants should be syringed over two or three times a day during warm weather until they are well rooted, which should be in about a month. As soon as you are satisfied that they are well enough rooted they should be replanted in a shaded border facing east, and the soil in which they are planted should have a dressing of leaf-soil, a little short manure, and also a good sprinkling of lime. They should be planted in rows 15 inches apart, and the same distance between plant and plant in the row. By careful treatment during the summer in the way of watering, hoeing, and taking the runners off after the plants are established (which they will be towards the end of July), you should then have strong sturdy plants by the end of September, which will give a fine supply of flowers throughout the autumn, winter, and early spring. The chief cause of the failure of your plants is, we think, attributable to the severe attack of red spider. The roots appear strong and healthy. The best plan to adopt to secure immunity from this enemy in future is to dip the young offsets (root and branch) two or three times over in a strong solution of Gishurst Compound as soon as they are cut from the parent plant and before planting. The red spider must be killed or the plants will do no good. They should be planted on new ground a good distance away from where they were grown before, and a look out must be kept up during the summer for its reappearance, and the plants syringed with the insecticide both over and under the leaf as soon as suspected. It would be better if you could start with a clean new stock.

CLEANSING APPLE TREE STEMS (C. W. F.).—There are so many different insects which affect Apple trees that diverse methods of dealing with them are needful. The worst enemy probably is the caterpillar of the winter moth, which in the summer preys on the leaves, and sometimes destroys them entirely. The best remedy for that is, early in October, to tie tightly round the stems of each tree, just above the ground, bands of stout brown paper 9 inches deep, and coat them with coarse grease, keeping this soft and fresh for three months. By that means the female insect is trapped as it seeks to ascend the trees to deposit its eggs. The codlin moth deposits its eggs in the blooms before they expand. Spraying with Paris green solution just before the blooms open is the best remedy. Another serious Apple pest is the woolly aphis or American blight. Scrub it out from the stems with hot soapy water, then work in the places infested either paraffin and clay or methylated spirit. To remove moss and lichen, make up in November a pasty wash of lime-white, soot, clay, and soft soap, and well coat the stems of the trees and the branches as high up as can be reached, then syringe the shoots with the same mixture. It is getting rather late to spray the heads now, as the flower-buds will soon be opening, but the stems so far as can be reached may be done.

PLANTS FOR ALPINE HOUSE (Hindhead).—We fear it is too late in the season to begin preparations now for alpinists to flower this spring unless plants already established in pots are obtained from one or other of the well-known specialists. For working up a stock of plants for the purpose we may advise you to choose from the list given below, in which many will be found of great interest and diversity. Almost all alpinists intended to flower in an alpine house are grown in pots or pans, and are kept plunged in cold frames or prepared beds out of doors until the buds are forming, when they are brought into the greenhouse to flower, after which they are returned to their growing quarters. In some cases they may be planted out and carefully lifted at the proper time. It does not answer to keep the plants under glass throughout the year. Seedlings are raised more easily under glass, but should be

pricked off or potted singly as early as possible and placed out of doors, first under a close frame, and later in full exposure, only being protected from heavy storms. Practically it is a little difficult to use the alpine house for a summer display unless there is sufficient accommodation elsewhere for growing a succession of flowering plants, but it might with good management be made very gay and interesting with half-hardy annuals (or plants treated as annuals) of various kinds, or, possibly, as a flowering place for Lilies or pot Carnations. †Anemone (A. apennina, A. blanda, A. fulgens, &c.), †Alpine Auriculas, *Aubrietia, *Campanulas, *Cheiranthus (C. alpinus and others), †Corbularias, †Crocus species (C. Imperati and others), †Cyclamens (C. Coum, C. ibericum, C. repandum, &c.), †Fritillarias (notably F. aurea), †Iris (I. Heldreichii, I. pumila, I. reticulata, &c.), †Megaseas, *Myosotis, *Orobis, *Primulas (a large number of beautiful species), †Saxifrages (S. burseriana major, &c.), *Symphyandra Wanneri. [* Indicates those that may be raised from seed without artificial heat. † Those which are best purchased as plants or bulbs. ‡ Those where either method is available.]

MUSHROOMS IN THE OPEN GARDEN (W. Whetton).—Mushrooms have occasionally been obtained by digging in manure from hot-beds and other heaps which have become impregnated with spawn, but, if you want to realise a profit from Mushroom culture, you must make up beds with stable manure which has been sweetened and prepared by turning and intermixing for eight or ten days, sheltered from rain. The manure must come from a stable where the horses have hard food and straw litter is used. If the manure is fresh there will be some economy in time and material by mixing one-fifth of loam with the manure, blending the whole together. The usual course for open-air culture is to make the bed in the form of a ridge, 3 feet wide at the base and 2½ feet high, the top to be made cone-shaped, and the whole built in firmly in layers. If you have a rough frame the bed may be made there 15 inches deep and be covered with shutters or straw mats. In this case also the bed must be made firm. As soon as the beds are made place in a thermometer or watch-stick, and cover with mats or long litter. The temperature can be regulated and kept under control by the depth of covering. When the temperature of the bed is steady at something like 85°—a degree or two will not matter—break up the spawn into pieces 2 inches in diameter, and insert just under the surface of the bed 8 inches apart. Beat down firm, and place on the covering again; examine daily, and if the heat keeps steady the spawn will throw out white threads or filaments, and then 1½ inches of loam should be placed on the surface and beaten down with the back of the spade firm and smooth. Have a pail of water near, and dip in the spade occasionally to leave a smooth surface. In due course Mushrooms will appear.

PROPAGATING PARADISE STOCKS (Viridis).—While it may be possible to root cuttings of the broad-leaved or English Paradise stock, it is always a matter of difficulty. Experience has shown that all members of the Apple family rarely make root as cuttings in the same way that shoots of Currants and Gooseberries will. If you do try to root shoots, select pieces of last year's growth, make the cuttings 8 inches long, and disbud all eyes except the top one. In planting in good garden soil—not necessarily highly manured—bury the cutting fully 6 inches deep, putting sharp sand in the bottom of the furrow to help the root-action if any be formed. It is recommended that a very small piece of the old or previous year's growth be taken off with each cutting. Generally Paradise stocks are grown for our home nurseries in France. They are propagated by means of layers. Old shoots headed hard down, as Nut trees are in woods, send up yearly a quantity of suckers, and these are bent down and layered, causing them to make roots freely.

CHRYSANTHEMUMS (*Chrysanthos*).—Begin the propagation of your late-flowering Chrysanthemums forthwith. Insert the cuttings and get them rooted quickly. By pinching out the tip of the shoots a branching is developed. Take up, as a rule, three shoots from the first pinching, and at each successive 8 inches of growth again pinch the shoots as advised already. Pinch the plants for the last time about the second week in July, and from this point grow on the resulting shoots to the terminal buds. Thin out these latter to one or two buds on each shoot, and feed the plants when they are well rooted in their flowering-pots. Place the plants under glass about mid October, and keep the glass structure quite cool and well ventilated. Warm the hot-water pipes sufficiently to prevent damp from settling in the opening blooms. Western King, H. J. Gillingham (primrose sport from the former), Winter Queen, Princess Victoria (white), and the pink and golden yellow sports from this variety, Allman's Yellow, Lord Brooke, Taxedo, Mme. Felix Perrin, Mme. Charvet, Violet Lady Beaumont, and Red L. Cinning are all good and reliable late-flowering varieties. Of the exhibition sorts you name, the following should make late flowering decorative plants: Mme. Cadbury, Mme. Paolo Radaelli, Mrs. Swinburne, and Mrs. J. C. Neville. The pink sort you have seen in the shops is either A. J. Balfour or Mme. Felix Perrin. We cannot say what the yellow sort is. A good new late-flowering yellow Japanese is Market Gold.

TWELVE CHRYSANTHEMUMS TO BLOOM IN SEPTEMBER AND EARLY OCTOBER (*W. M.*).—The subjoined list of early-flowering garden Chrysanthemums represents twelve of the best sorts at present in commerce. The selection is confined to varieties of Japanese origin, but if you would like a short list of good Pompon sorts and some of the newer early-flowering singles, on hearing from you to this effect we will at once give one. Horace Martin, bright yellow, very fine branching habit; Carrie, a rich yellow, dwarf habit—the flowers in this instance are of beautiful form; Polly, a fine, large bronzy yellow, good sturdy grower; Rosie, beautiful bronzy terra-cotta, branching habit; Ralph Curtis, creamy white, ideal branching habit; Rocket, a charming chestnut bronze, free flowering, and bushy; Howard H. Crane, chestnut crimson, golden centre and reverse, bushy habit; Nina Blick, rich crimson bronze, sturdy grower; Kitty, a pretty pink flower, very dwarf habit, and a persistent bloomer; Rabis, a pretty purplish claret; Goacher's Crimson, a deep rich crimson, sturdy grower, good habit, free flowering; and Improved Masse, a grand new mauve-pink flower of splendid quality and of good habit. The foregoing dozen sorts embrace an excellent range of colours.

ROMNEYA COULTERI (*R. L.*).—It is true that this Californian Tree Poppy does not flower on the old wood; but fresh side-shoots are thrown out from the old stems which bear blossom. However, plants on which the old wood is allowed to remain year after year generally lose in vigour, and many eventually die. For a year or two specimens in which the old wood is not cut away are often striking examples, 9 feet or 10 feet in height, but rarely remain in robust health for a longer time, whereas, where the growth is restricted to the annual shoots, vigour is well maintained year after year. The best time to cut away the old wood, which should be entirely removed, is when the young growths pushed up from the base have attained a length of from 6 inches to 9 inches. The Romneya foliage is often much disfigured by caterpillars, which should be sought for at night with a lamp.

QUESTION.

VAPORITE.—If any of your readers could give me any information about Vaporite I should be much obliged.—A. B. ALBRIGHT.

OBITUARY.

PATRICK NEILL FRASER.

MANY readers of THE GARDEN will regret to learn of the death of Mr. Patrick Neill Fraser, which took place suddenly at his beautiful residence, Rockville, Murrayfield, Edinburgh, on the 27th ult. Mr. Neill Fraser was all his life a devoted gardener, and in the Scottish capital and in the almost world-wide circle of horticulturists, to whom he was known either personally or by correspondence, he was held in the highest respect—a respect thoroughly earned by his urbanity, his kindly spirit to all who had similar tastes, and his unflinching desire to advance the interests of horticulture. It must have surprised many to find how Mr. Fraser, who was at the head of one of the most extensive business enterprises of Edinburgh, could find time to make himself so well acquainted with plants and to keep so thoroughly in touch with the introductions of the day. Those who had the privilege of visiting Rockville, where he was ever ready to welcome anyone of like tastes, soon saw how much his methodical business habits contributed to the finding of leisure for his gardening. His note-books were models of their kind for purposes of reference, and he could in a minute or two turn to references regarding any plants in which he was interested, either in the many volumes which his extensive botanical and horticultural library contained or in his books of cuttings from the leading horticultural journals. In his garden the same methodical habits were observable. The garden at Rockville is interesting and beautiful. For many years Rockville has been noted for its tender and hardy Ferns. Recently Mr. Fraser dispersed the bulk of his collection of tender Ferns, some of which were exceedingly fine specimens, but retained the Filmy Ferns. The hardy Ferns at Rockville form probably the finest collection in Scotland, and include many choice and little-known forms. Alpine plants have been for many years favourites with Mr. Neill Fraser, and his rockeries and the more recently-formed Japanese garden are filled with many good plants. Mr. Neill Fraser paid much attention to the Polyanthuses in order to secure improved varieties, mainly white and yellow forms. Mr. Neill Fraser's horticultural tastes led him to take a warm interest in various societies for the promotion of botany and horticulture. Among his work of this kind may be mentioned that in connexion with the Royal Caledonian Horticultural Society, of which he was for a good many years honorary treasurer. Mrs. Neill Fraser and family have the sympathy of many gardeners in their bereavement.

S. A.

JAMES EPPS, JUN.

WE regret to record the death of Mr. James Epps, jun., of Norfolk House, Beulah Hill, which took place recently in Jamaica. Mr. Epps left England shortly before Christmas on a visit to his Cacao estates, also for the purpose of recruiting his health. He had visited Trinidad, and, by way of finishing his tour, had arrived at Jamaica, intending to leave for home on March 7. Particulars as to Mr. Epps's illness and death will not be available until the arrival of the West Indies mail. Mr. Epps was an ardent lover and liberal patron of horticulture. He was much interested in the culture of economic plants, and for many years had been successful in cultivating and fruiting the Cacao tree in his conservatories at Beulah Hill. He was vice-president for a number of years of the local Chrysanthemum Society, was a winner of several medals and certificates, and the donor annually of a silver cup for amateurs. Mr. Epps had occupied the position for two years of president of the Croydon Natural History and Scientific Society; he was

also a member of the Linnæan and of the Royal Horticultural Societies. On several occasions we have published most interesting notes and illustrations, contributed by Mr. Epps, of his economic plants at Norwood.

ALEXANDER DRUMMOND.

MANY connected with the fruit-growing industry in Scotland will regret to learn of the death of Mr. Alexander Drummond, Burnside, Wester Foulis, N.B., which took place on February 25, at the age of 63. Mr. Drummond, who also acted as overseer on the Wester Foulis estate of Sir Patrick Keith Murray, Bart., of Ochertyre, was for many years engaged in fruit-growing and other branches of horticulture. He was a most successful competitor at the large horticultural shows, such as that of Dundee, where he generally took a high place.

DANIEL M'ONISH.

MR. DANIEL M'ONISH, seedsman and nurseryman, Criefie, died very suddenly at his residence, Croftennapoch, on February 26. Mr. M'Onish, who was an elder in the North United Free Church, attended forenoon service there, and at that time was in his usual health. On his return home he partook of dinner, afterwards retiring, as was his wont, for a short rest. He became suddenly unwell, and by the time medical aid could be procured life was found to be extinct. Mr. M'Onish was very highly respected by all in the district, his quiet and unassuming nature making him a general favourite. He is survived by Mrs. M'Onish and a family, for whom much sympathy is felt in their sudden loss.

LATE NOTES.

A magnificent prize.—The National Potato Society has secured a magnificent prize for its show at the Horticultural Hall on November 23 and 24 this year, through the enterprise of Messrs. James Carter and Co., the famous Holborn seedsmen, and Mr. A. Findlay, the great Scottish raiser. Jointly Messrs. Carter and Findlay offer a splendid silver challenge cup, value £50, and £12 in cash, for twelve dishes of Potatoes. Full particulars are given in the schedule, copies of which may now be had on application to the secretary, Mr. Walter P. Wright, Postling, Hythe. Altogether, prizes to the value of nearly £200 are offered.

Proposed Henry Eckford testimonial.—A suggestion has been made to present a testimonial to Mr. Henry Eckford, in recognition of his great services to floriculture, particularly directed of late years towards the improvement of the Sweet Pea.

Rhubarb Crimson Winter.—On page 122 "R. D." refers favourably to this newly-introduced Rhubarb. As yet it is little known, but we believe it will be generally grown in the near future. We planted imported crowns of it two seasons ago in the spring, which produced plenty of leaf-stalks the following autumn, and, of course, more strongly the one following when well established. Early supplies of Rhubarb are welcome, but many do not attempt to force English crowns in small gardens, because, not only is the fermenting material required not available, but also where it is, its presence in close proximity to the dwelling proves objectionable. The above variety, therefore, will prove doubly welcome in such instances, when gatherings may be had without the labour of forcing. Although it may be rightly termed perpetual, fresh growth towards winter is checked by inclement weather, therefore, a sheltered position should be selected for planting, and temporary protection afforded should the condition of the weather require its use.—R. P.

BOOKS.

Flora and Sylva.—The second volume of this beautiful book, edited and published by Mr. W. Robinson, is even more interesting than the first one, which has given so much pleasure and instruction to garden lovers. No money seems to have been spared to make *Flora and Sylva* the most sumptuous monthly periodical of the day. It is printed on hand-made paper, and with each part two coloured plates are given of new or rare plants, while the wood engravings are a positive delight. This volume is dedicated to the memory of the late Dean of Rochester, Samuel Reynolds Hole, a graceful tribute to a great gardener. The articles are varied, but the editor shows his strong love for trees and shrubs by devoting much of the space to their description and the best ways of planting them. "The Greater Trees of the Northern Forest" is continued, and the first contribution to the present volume describes the beautiful Tulip tree, with an engraving of the famous specimen at Esher Place in Surrey. The volume teems with exquisite garden scenes, and the coloured plates by H. G. Moon are perfect portraits of the flowers they represent—*Eurotia speciosa* var. *rosea*, *Rhododendron Smithi aureum*, *Lycaste Mary Gratrix*, *Magnolia parviflora*, *Nicotiana Sanderae*, *Gloriosa rothschildiana*, and *Magnolia Campbellii* in particular. *Flora and Sylva* is published at 1s. monthly, and the bound volume is a handsome gift book to a gardening friend. It is published at 17, Fumival Street, London.

The Book of the Rose.—We are not surprised that a third edition of this practical book about Roses has been called for. It was passing through the press when its author, the Rev. A. Foster-Melliar, Rector of Sproughton, Suffolk, was seized with sudden illness and died, to the intense regret of a wide circle of Rose growers. In this edition the book has been thoroughly revised, and this is necessary in these days when new varieties are constantly appearing, sometimes to be once seen and no more, and sometimes to thrust old favourites aside. If there is a blemish it is the absence of practical illustrations, showing, for instance, the way to prune and plant a Rose. Diagrams are most helpful. A hundred pages of explanation will not convey so much as one well-drawn explanatory diagram. It is published by Messrs. Macmillan and Co., price 6s.

A Gardener's Year.—This is a book we can cordially recommend to the amateur gardener who is interested in the records of an observant mind and a keen lover of Nature and the garden. There is not a page without its pleasantly described experience of the Peas or the Potatoes, or the Orchids in the warm greenhouse, though we think the author, Mr. Rider Haggard, would have done well to have restrained his enthusiastic admiration for the Orchids and their history in the sale-room. Many of the notes are of considerable practical value, and we are pleased to know that Mr. Haggard appreciates an Apple which has been frequently praised in the pages of *THE GARDEN*. This is the variety James Grieve, and the author's opinion is that of our own; it is an excellent Apple. He is writing of a visit paid, towards the end of September, to a friend in Cambridgeshire, in whose house he made his "first acquaintance with an Apple, which I thought delicious, and, indeed, at first imagined to be one of the finest Canadian sorts. It is named James Grieve, and came from Messrs. George Bunyard and Co., who say of it in their catalogue that it is 'one of the best Apples recently introduced, and may be styled an early Cox's Orange.' They state also that it is of fine flavour and appearance, comes from Scotland, succeeds where Cox's is tender, and is a remarkably good bearer. The specimens that I ate off some pyramids, which have done well on this chalk soil, were large in size, of an orange-green

colour, with a red flush, and a sharpish flavour of Pippin and Pine-apple. I recommend my readers to try this Apple, as I mean to do myself." The book is illustrated from photographs taken in the author's garden, and is well printed. The publishers are Messrs. Longmans, Green, and Co., and the price is 12s. 6d. net.

SOCIETIES.

BRITISH GARDENERS' ASSOCIATION.

IN addition to those previously reported, meetings in connexion with the above have been held: At Croydon, under the auspices of the Croydon and District Horticultural Mutual Improvement Society, on the 21st ult.; the proposal, adjourned from a previous meeting, to form a local branch of the British Gardeners' Association was again brought forward, with the result that it was resolved that a branch should be formed. Mr. W. Rowson (head gardener Falkland Park Gardens, South Norwood Hill) was appointed local secretary, and all local gardeners interested in the association are requested to communicate with him. At Plymouth, on the 25th ult., under the auspices of the West of England Chrysanthemum Society, over a hundred local gardeners being present, the meeting was addressed by Mr. C. H. Curtis as a delegate from the association. A discussion followed, after which Mr. A. J. G. Chalice (nurseryman), Plymouth, moved, and Mr. W. Selley (head gardener Delamore Gardens), Cornwall, seconded, "That a branch of the British Gardeners' Association be formed in Plymouth, to be known as the Plymouth and District Branch of the British Gardeners' Association," and this was carried unanimously. Mr. W. S. E. Cholwill (head gardener Lukesland), Ivybridge, was appointed local secretary, and all those wishing to join the association were requested to communicate with him. Over fifty members of the audience responded to the request there and then. A meeting of the committee of the Yorkshire branch was held at Leeds on the 25th ult. Amongst other business it was resolved that the committee meet monthly, special meetings to be convened by circular, and that a small sub-committee be appointed to consider any doubtful applications for membership. A circular letter drawn up by the secretary was adopted, with slight alterations, and 1,000 copies were ordered to be printed and circulated, together with the plea, prospectus, and form of application, among the gardeners throughout the county.

WARGRAVE AND DISTRICT GARDENERS' ASSOCIATION.

THE committee are sorry to have to chronicle a great falling off in the number of ordinary members, and also to record the death of Mr. J. W. Keeley, a very promising and useful member. It is true a large number of the names which appeared on last year's list have been struck off during the past year owing to the men having left the neighbourhood, but at the same time their places have been filled by newcomers who have not yet joined the ranks of the association. It is young gardeners especially that the society would welcome, for in these days of activity and bustle the gardener must be up and doing and keep to the front in all matters that affect his calling. Science has made rapid strides in horticulture as well as in other branches, and if gardeners would keep abreast of the times they must meet together, interchange ideas, and talk over difficulties, successes, and failures. Here the Mutual Improvement Society lends a helping hand, and it is hoped that each member will do his utmost to obtain new members, amateur or professional, in the coming year. The meetings during the past year have been well attended, with few exceptions when the weather was bad, and those in the summer months of June, July, and August were discontinued, as the experience of former years showed that members found it difficult to attend them.

LIVERPOOL HORTICULTURAL ASSOCIATION.

A MEETING was held on the 4th inst. at Victoria Street, Liverpool, Mr. T. Foster in the chair. The lecture was on the Peach, and given by Mr. B. Ashton of The Gardens, Lathom. The essayist gave a short outline of its introduction to this country, and remarked that good fruits had been produced outside in this as well as many other parts of the country. The purpose of his paper was that with proper culture this satisfactory system might still be continued, as showing the need of a proper foundation. The most approved forms of borders, drainage, and material were described. It was not advisable to mix manures with the compost, but a dressing as a mulching after planting was highly desirable as a protection from severe frosts and evaporation. Protection was considered necessary, especially during the flowering period, this being by means of canvas connected with strings to be run up on wires fastened to the tops of the wall. A comparison as to shortening the growths or leaving them the full length was decided in favour of the latter. Pruning, disbudbing, laying in of the laterals, syringing, watering, and general culture were submitted in detail. To complete the culture of the Peach indoor cultivation was included, the type of house having movable lights if possible, so that the full air might be given after the ripening of the crops, was recommended. The best means of prevention and cure of insect pests were described, with

a list of the most approved kinds for cultivation. A good discussion followed, in which Messrs. Joseph Stoney, G. F. Hazleton, R. W. Ker, H. Ewbank, the chairman, and others took part. A cordial vote of thanks to Mr. Ashton for his admirable paper and Mr. Foster for presiding terminated the proceedings.

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This is simple, effective, economical, in its use, and can be used for all kinds of plants, from 6ft. to 6in. high for Sweet Peas, Chrysanthemums, Dahlias, and Peonies, &c. They have already met with appreciation, as will be seen by the following extract from a letter from Mr. Fockwith, the celebrated winter-flowering Carnation Grower:—

"Huddleslon, Herts, Feb. 14th, 1905.
"The last sample, No. 51, seems to me about as perfect as can be for our purpose, and we can use an immense number of them, and also of the smaller size (No. 3). It is a pity I did not know you sooner, as I bought 2500 of the larger (No. 5) and 2,000 of the smaller (No. 3)—Signed, G. BECKWITH."

Also cheap wire baskets for Asparagus Springers.
For Samples of 3 sizes, post free 1/-, and for prices, apply to—
R. D. WHITMEE & CO., Birchwood Park Nurseries, SWANLEY, KENT.

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FOR 1s. 6d. TRESEDER & CO., Seeds-
men, Truro, will send post free twelve packets choice Flower, six packets Vegetable Seeds, and a P.P.C., with view of their tropical garden.

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THE GARDEN

No. 1739.—VOL. LXVII.

MARCH 18, 1905.

ENGLISH v AMERICAN APPLES.

A GOOD deal of interest has been aroused by a note that appeared in *THE GARDEN* for January 14 last with reference to this subject. Mr. George Bunyard, in a lecture delivered to the members of the Maidstone Farmers' Club, is reported to have instituted a comparison between British and Colonial Apples, saying that the latter are better suited for dessert on account of their peculiar sweetness. He suggested, in view of this, that home growers should pay more attention to producing good kitchen Apples. Since this note appeared we have published several letters for and against Mr. Bunyard's statement, and in view of the importance of the subject we give others below:

I QUITE agree with all you claim for the Newtown Pippin—its infinite superiority over any Apple we have in England, not excepting the Ribston Pippin. But what I note in this connexion is that the Newtown Pippin of the present day is woefully inferior to the Newtown Pippin of old. I speak of the Apple received from the States some eighty years ago under that name, and I fail to find anything in quality equal to the old style; indeed, though I have sought for it diligently, I have failed to find a Newtown Pippin at all approaching what we used to receive in the days of my boyhood. I can only conclude that the old stock by one system of hybridising or other is well-nigh extinct, giving place to what is now foisted upon us under the old cognomen. The Newtown Pippin of to-day is a downright fraud. All the comparative trash now received from the States is dubbed a Newtown Pippin, and is as inferior as chalk is to cheese. Your correspondents seem to know something about the matter, and will they inform your readers where a veritable Newtown Pippin is to be bought.—KEW.

I HAVE read Mr. Engleheart's article on "English v. American Apples" with much interest, as I have not yet succeeded in getting any English Apple worthy of the table after November, and with the exception of Cockle's Pippin, which is a refreshing Apple, have to rely entirely on American Newtown Pippin. A month ago, however, my gardener brought me some samples of an Apple called Annie Elizabeth. They were green, and closely resembled the Newtown Pippin, except that they were not so sweet. He suggested keeping them another month, and has now brought them in well coloured, and when eaten they are hardly to be distinguished from a Newtown Pippin. In fact, I had some difficulty in persuading a great admirer of the American Apple that they were English grown. Now, in all the catalogues that I have seen Annie Elizabeth is described as a kitchen Apple, and the growers seem to ignore its capital qualities, such as

juiciness, crispness, and flavour, and persist in recommending the close woolly varieties justly complained of by Mr. Engleheart. I intend at once to make a planting of this variety, late though it is in the season.—A. M. MARTINEAU, *Hurst Lodge, Berks.*

MR. BUNYARD may have noted the superiority of some of the American Apples over a lot of our own varieties, but I should hardly think he indulged in such a sweeping condemnation of the latter as appears in Mr. Engleheart's note on page 126. This reminds one somewhat of the Potato onslaught and the glorification of the French tablets of soap at the expense of the English flour balls. Nearly everyone, I suppose, is willing to admit that far too many inferior varieties of Apples have been planted, with the result that the grower is now called sharply to account, and a demand for better quality is heard alike from mansion and market; also that several of the Americans are better than our second-rate sorts. It by no means follows, however, that, with the exception of Cox's Orange Pippin, we have no Apples equal to the foreign sorts; on the contrary, there are several quite as good, if not rather better. Very early Apples may be required for market, but it is hardly the case in the majority of gardens, as few people care for Apples when they can get juicy Peaches and Nectarines, luscious Figs, and Gage Plums. As a first-rate second early to precede Cox's Orange Pippin I should put Gravenstein quite at the top of the list. There may be two forms of this, as one catalogue tells us it should be eaten from the tree, and another that it will keep until December. Perhaps Messrs. Cannell, who showed this Apple splendidly last season, will give us the benefit of their experience. With me it does not put on a bright colour, but is of a rich gold throughout, rather over medium size, and keeps well until the middle of November. Dr. Hogg says of it: "Flesh white, crisp, very juicy, with a rich vinous and powerful aromatic flavour, this beautiful and excellent Apple is comparatively little known, but is a valuable fruit of the first quality." When to this may be added that it is very digestible it ought to appeal to Mr. Engleheart's palate, and even expensive teeth should make short work of it. Few growers will agree with the statement that "Cox's Orange Pippin is seldom at its best after the middle of November." On the contrary, if allowed to hang as long as possible on the tree and carefully housed it is first-rate all through December, and even a little after the New Year. Neither can one agree with the statement that "from January onward one has to fall back on hopelessly second-rate Apples." What about Cornish Gilliflower, Claygate Pearmain, and Braddick's Nonpareil? The first-named is a shy bearer, but crops fairly well on bushes if judiciously pruned, while from a purely flavour standpoint it is probably the finest Apple in existence. The starlings and blackbirds are evidently of this opinion; they make for it before any other, even when it is quite green, and unless carefully netted we should never secure a sound fruit. Of the other two I like Claygate Pearmain the better, and, if confined to one sort, as a high-class late dessert Apple should always plant this. The rich, slightly yellow flesh is highly flavoured,

and, like Gravenstein, it is an easily digested fruit.—E. BURRELL, *Claremont.*

MR. G. H. ENGLEHEART'S reflections on "English v. American Apples" are very much to the point, and I heartily applaud his courageous handling of national prejudices. I notice in your Covent Garden wholesale price list, page xii., that cases of this variety fetch 20s. to 24s., which is an exorbitant price, and seems to indicate that the British taste for a really good Apple is fast improving, for what may fruit retailers charge actually to their private customers when they themselves pay 6d. to 7d. per lb., as they do, for the case contains only a bushel, a little over 40lb. This condition of values places the right interpretation and merit on Mr. Engleheart's suggestion as to cross-breeding of suitable varieties that might compete with Newtowns, and render our country a little less dependent on foreign supplies of really good things, as is actually the case. That such things can happen to fruit in a British season of glut, as after being almost unsaleable during October and November last, a thousand bushels of such as Lane's Prince Albert, well graded, went begging at 2s. 6d. per bushel, is a remarkable circumstance, which might assist in opening the eyes of a few would-be growers. What may not happen in a season of scarcity with the right sorts provided at home in relative quantity for the more fastidious among Apple-lovers? We should be on a level with the French in their admiration of their splendid Calville Blanc, so rarely seen or grown in England, and only imported in dribbets into Covent Garden, and annually sold there at 1s. and 1s. 6d. retail per Apple in the spring months. There is no reason whatever for this variety being caviare to our nation, except ineptness in producing it. Ignorance of meteorology and its effect on crops of all kinds in this country is, besides superficiality of management, at the bottom of all failure, and this is notably the case with fruit subjected to spring frosts in the blossom-stage from ill-advised selection of sites for plantations. American summers referred to by your correspondent are, indeed, of consequence, in so far as they provide more sunshine than falls to our lot on an average. American Newtowns, however, are grown from 41° N. Lat. near New York down to Virginia (38° N. Lat.), therefore regions corresponding almost exactly with the geographical position of Portugal. They are regions that approach subtropical conditions in a sense, while we do not transgress south of 50° N. Lat. in our main islands. Of course, our prevailing westerly winds favouring us from the vast and relatively warm Atlantic constitute a powerful set-off to rigour of climate. There are, of course, some very good English Apples which are in season from January onwards. I know of none better than Scarlet Nonpareil, best in February, which in good seasons almost rivals our famous Ribston as eaten from the tree, or soon after picking, after the middle or end of September. Cox's Orange gives us a full month's grace, and remains enjoyable well into January. But in the same sense as Mr. Engleheart, in referring to the Blenheim, I should like to deprecate the idea, as if there were any virtue in the popular King of Pippins or Beauty of Bath,

which Mr. A. Dean, on page 127, regards as among the best dozen eating Apples. Much finer sorts, such as Egremont, Mother, Gravenstein, Benoni, and many others are ignored, and they all produce very fairly to well on the Paradise stock. The Crab stock is the cause of Ribstons being found wanting in freedom from what is popularly named canker; this, in most cases, is merely neglected American blight. Or the drawback is that standard trees are planted, which is a complete mistake in all circumstances, except for Cherries for market, and in the form of fruit trees generally along highways.

Sidcup, Kent.

H. H. RASCHEN.

PRIZES FOR GARDENERS. MARCH.

A First Prize of FOUR GUINEAS,

A Second Prize of TWO GUINEAS,

A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA

are offered for the best Essays on the subject of

SUMMER GARDENING.

The essay must not exceed 1,000 words in length; it must describe the best way (in the writer's opinion) of keeping the Flower Garden beautiful during June, July, August, and September. The various plants recommended must be correctly described with regard to height, colour of flowers or foliage, and time and duration of flowering. More points will be given to the essayist who is able to show how the garden may be made attractive throughout the summer by one planting only, than to those who advocate successional plantings. The prizes will be mainly awarded for the information given. Style of writing will not be so much considered. The object is to have plain practical gardening experience. The first prize essay will be published. This competition, which is open to all professional gardeners, closes on March 31.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

March 17.—Quinquennial Exhibition of the Royal Dutch Bulb Growers' Society at Haarlem.

March 22.—Royal Botanic Society's Show.

March 28.—Royal Horticultural Society's Meeting; Horticultural Club Dinner at 6 p.m., followed by a lecture on "Forests, Wild and Cultivated," by Dr. Henry.

March 29.—Liverpool Horticultural Association's Show (two days).

British Gardeners' Association.

At a committee meeting held on the 3rd inst. it was decided that, 500 gardeners having joined the association, the election of the executive council should be proceeded with. The council will consist of twelve members who live within easy reach of London, and a representative of every branch with not less than fifty members. To enable all to take part in the election of the twelve a list of those who are willing to serve on the council will be posted to every member, who will be invited to mark the names of those he prefers, and the twelve who obtain the highest number of marks will be considered elected. This arrangement appears to be the only

workable one that would give satisfaction. The selection of candidates will be representative of all sections of gardening, but the majority will be gardeners employed in private establishments. Gardeners who have not already joined the association are urged to do so at once, and thus secure the right to take part in the election of the first executive council. Candidates for membership are requested to apply to the secretary of a branch should there be one near, but those who prefer it may apply direct to headquarters. The expenses of public meetings held in different parts of the country are, as a rule, provided locally, the fund for the promotion of the movement being too small to do more than help to pay the delegates' expenses. The committee would be thankful for further help in the shape of donations to the expenses fund. It was also decided to secure an office in London and to engage a permanent secretary as soon as possible. Up to February 28 the membership was 504. Of this number 211 are head gardeners, 26 single-handed gardeners, 183 journeymen gardeners, and 80 various. These are distributed: South of England 271, North of England 91, Scotland 42, Wales 78, Ireland 12, and Colonies 6. Meetings have been held in 23 gardening centres, including Birmingham, Leeds, Sunderland, Plymouth, Exeter, Bournemouth, Reigate, Swansea, Cardiff, Altrincham, &c. Branches have been established in 17 districts. Suggestions for holding public meetings from gardeners who are willing to help will be gladly received by the secretary. The statement of accounts shows: Receipts, £191 6s. 6d.; expenditure, £52 16s. 11d.; cash at bank and in hand, £138 9s. 7d.; donations promised, £81. The secretary (*pro tem.*) is Mr. W. Watson, Descanso House, Kew, Surrey.

National Potato Society's show.

The schedule of the National Potato Society's show, copies of which are now ready and can be obtained post free from Mr. Walter P. Wright, Postling, Hythe, marks a great advance on 1904. The president, Sir John T. D. Llewellyn, Bart., offers a silver cup, value £10 10s. Messrs. Carter and Co., in conjunction with Mr. Archibald Findlay, offer a magnificent challenge cup, value £50, together with £12 in cash. Messrs. Sutton and Sons offer £24 in cash prizes for their great Potatoes Discovery and Superlative. Mr. E. J. Deal (Messrs. W. W. Johnson and Son, Limited, Boston) offers a silver cup. Valuable cash prizes are offered by the following well-known firms: Messrs. Daniels Brothers, Limited, Norwich; Fidler and Sons, Reading; J. Kerr, Dumfries; Robert Sydenham, Birmingham; S. M. Thomson (Dalmeny agent), Edinburgh; William Deal, Kelvedon; Dobbie and Co., Rothesay; T. A. Scarlett, Edinburgh; Professor W. J. Malden, Ham; R. W. Green, Wisbech; J. Bettinson, Wisbech; G. Massey and Sons, Spalding; H. Scott, Warminster; and others. The total value of the prizes is nearly £200, and the schedule is comprehensive and varied.

Effect of sunshine following severe frost.

—In February, 1902, I had occasion to write, with reference to the "Hardiness of Certain Shrubs," that "a plant may withstand 15° of frost with impunity on one occasion, only to succumb at a later date to a temperature 10° higher; so much depends on the atmospheric conditions prevailing during the frost." In November, 1901, a considerable portion of the south-west was visited by an exceptionally severe frost, and I gave the instance of a garden in the neighbourhood of Plympton, where on one night two thermometers, distant about 200 yards apart, registered 20° and 21° of frost respectively. The frost continued in lesser intensity for five nights, but practically no damage was done, even large bushes of *Cytisus racemosus*, then bearing several flower-sprays, being unharmed. During this frost, however, the days were dark and windless, not a gleam of sun being seen. Last November there were 18° of frost registered in the same garden. This was followed by brilliant sunshine from sunrise

throughout the day. As a consequence the great *Cytisus* bushes referred to were killed, and several plants of *Cordylina* (*Dracæna*) *australis*, considered quite hardy in the south-west, were so damaged that they are not likely to recover. In neighbouring gardens all the bushes of shrubby *Veronicas* and *Olearia stellulata*, which had passed through the frost of 1901 unharmed, were absolutely killed. *Cytisus racemosus*, shrubby *Veronicas*, and *Dracænas*, where shaded during the morning, escaped uninjured or nearly so, this proving conclusively that the damage was due to the action of the sun on the frosted leaves and shoots. Curiously enough, the South American *Drimys Winteri*, standing close by the killed *Veronicas*, had not a leaf injured.—S. W. FITZHERBERT.

Water gardening.—May I call the attention of the writer of the article on "Water Gardening" in your issue of March 4 to the experience of Mr. Rider Haggard in planting *Villarsia Nymphoides* and *Stratiotes aloides* in ponds. In his recent book, "A Gardener's Year," he says: "War will have to be waged against (these) two plants which I purchased and carefully set here last year. . . . Already I heartily wish that I had never seen either of these species. . . . One more season of it, and if left unchecked I am convinced *Villarsia Nymphoides* and *Stratiotes aloides*, having killed out the Lilies and every living thing, including weeds, would be engaged in a life and death struggle as to which of them should have the pond to itself."—PETERS.

"Windsor Park and Forest."

—What can be more interesting than some acquaintance with the Royal Park and Forest of Windsor? questions the author in the opening chapter of "Windsor Park and Forest," and, taking this for his text, proceeds in the course of the fifty pages, of which the book consists, to point out the objects of interest and of beauty that abound in this neighbourhood, unique in its associations. Mr. William Menzies has compiled some excellent reading, and to us the chapter on famous and historical trees is of particular interest. One of the most noted specimens is the Prince Consort's Memorial Oak, planted by Queen Victoria in 1862; an excellent illustration of the actual planting ceremony is given. It is now apparently about 40 feet high, although its present dimensions are not stated. We learn that the largest tree in the Royal domain is an Oak, which has a circumference of 35 feet at 5 feet from the ground. The book is attractively illustrated, all the most notable trees, as well as other features, being shown. The illustrations, which are from photographs, are very well reproduced, and add considerably to the value of the book. The publishers are Messrs. Oxley and Son, Windsor.

Window flowers for London houses.

—It is very gratifying to read in THE GARDEN (February 18) that the Earl of Meath is offering money prizes to metropolitan flower show committees who will include a window-box class in their schedules. It would be well if a list of plants could be given, including the more easily-grown creepers, as *Nasturtiums*, *Basella rubra*, *Maurandya barclayana* and *M. b. alba*, *Cobæa scandens* and *C. variegata*, *Eccremocarpus scaber*, *Tropæolum peregrinum* (Canary Creeper), Ivy-leaved *Pelargoniums*, and *Clematis* of not over-rank growth might be recommended, such as *C. coccinea* and its hybrids; all are very pretty when in bloom. The foregoing plants are excellent for training up the sides of windows, for covering small balloons, flat trellises, and hanging over the sides of window-boxes. There are some of the more common foliage plants, as *Acacia lophantha*, and *Melanthus major*, and *Cannas* of dwarf stature with bronze or green foliage, all of which have gorgeous blooms. *Fuchsias* and *Abutilons* should not be omitted. In gloomy streets, where flowering plants would not succeed, hardy Ferns, such as *Asplenium*, *Athyrium*, *Lastrea*, *Polypodium*, *Scolopendrium*, and *Polystichum*, might be recommended in place of flowering plants.—F. M.

Bee Balm and bees.—Will you kindly tell me what effect, if any, the Bee Balm (*Monarda didyma*) has on bees or honey? A few years ago a correspondent, whose identity I cannot now remember or I would have referred to her direct, wrote me: "I will not have it in the garden because of the bees." But she did not say why "because of the bees." Did she mean that it was harmful to them or to the honey, or did she mean that it was so pleasing to them that it attracted more bees than it was convenient to have in the garden? At the same time may I ask whether any of the usually-grown hardy plants are hurtful to bees or make their honey unwholesome? I do not keep bees myself, but should be glad to know on account of a near neighbour who has many hives and whose bees no doubt collect in my garden.—G. J.

Vanilla - scented Clematis.—A question appeared some weeks ago about the identity of a Clematis smelling of Vanilla. An answer did not appear till lately, when it was suggested that the Clematis in question was *C. Flammula*. But this pretty, September-flowering species, though it has a sweet scent, is hardly like Vanilla. But the May-flowering *C. montana*, at one time of its blooming, gives off a strong scent exactly like Vanilla. It is most noticeable when the bloom is just past its best, and when the petals have that slightly-shrivelled look that comes a day or two before their fall. The querist could judge between the probability of either of these answers fitting his plant if he remembers the time of year of its blooming.

Garrya elliptica.—Among winter-flowering shrubs I know of none more beautiful and interesting than the Garrya. Long before even the earliest Snowdrop comes out the Garrya has pushed forth its delicately tinted catkins. Until recently I had only seen it grown against a wall. Three years ago I had a young Garrya planted on what was formerly a herb border, but was then sown down in grass. The young plant receives no extra cultural treatment, except that a small circle round its base is kept free from grass. Last year it bore catkins in great profusion, this year they have not been so numerous, but the plant has made excellent growth, giving promise of a fine display for another season. Growing on a sheltered grassy border the full beauty of this lovely Californian evergreen shrub must be seen to be adequately appreciated.—J. JEFFREY, *The Gardens, St. Mary's Isle, Kirkcudbright.*

Golden Euonymus on a wall.—Among other interesting work during spring, that of selecting suitable plants for training against the house may well claim attention. The neat growing Virginian Creeper (*Ampelopsis Veitchii*), the different Clematises, and others may be used; but pleasing as they undoubtedly prove when at their best, there is still something wanting. The former being deciduous does not give a winter effect, while the Clematis requires constant management to maintain a neat habit, so prone are the growths to ramble away and become an entangled mass, thus leaving much of the base quite devoid of both leaves and flowers. For embellishing the fronts of houses with a plant that will require little attention but still maintain a neat habit, the Golden Euonymus is most suitable. It is beautiful when grown as a shrub, and equally so when trained to brickwork, while it is evergreen. We notice it is used freely for such a purpose at different seaside towns. In planting it is necessary to secure several leaders, training these evenly apart, then by keeping the shoots pinched in, an even surface of foliage close to the brickwork is secured. The foliage may lose its brightness in towns, owing to the deposit from smoke and dust, but this is easily removed by using the syringe.—R. P.

The Spindle Tree (*Euonymus europæus*).—This shrub is at its best in autumn and early winter, when the colouring of the foliage in some soils and situations is equal to

that of the Ghent Azaleas, while the brilliant coral-like berries are very pleasing. Although it is very common in some parts, in others it is rarely seen. This cannot be attributed to the want of hardiness or a rich soil, as we have frequently found large thickets of this plant growing in a wild state on the South Downs, at a great elevation, and fully exposed to sea winds. The soil, too, is of the poorest, simply a thin layer of mountain turf covering the chalk. In such positions the foliage is more beautiful in the autumn, and the fruit more plentiful than on bushes grown in the garden. It is also seen in the hedgerows and spinnies, and appears to be proof against the ravages of hares and rabbits. It is used very freely at the autumn shows as well as in private rooms for making arrangements with other autumn foliage and berries. Though generally known under the name of the Spindle Tree, woodmen and others only know it as skewer wood, and it is sought after by gypsies for making skewers, which shows how plentiful it is in some districts. I can recommend this shrub for planting in woodlands and other places, as masses of it lend a pleasing colour as winter approaches. We have frequently seen the bushes referred to from 8 feet to 10 feet in height; in a wild state they are apt to become thin at the bottom, which, of course, is prevented when under management in the garden.—RICHARD PARKER.

Plant names.—A recommendation for Latin names to plants is that these in horticulture constitute universal language, and because horticulture is cosmopolitan that universality is not only essential, but it is international also. When local or common names are given to plants they, as a rule, differ in each country—often, indeed, in each county here, hence plant nomenclature becomes a jumble. Happily, we do not find Latin names, after all, so very difficult. Probably those who complain of them most are those too indolent to acquire them, yet when acquired how easy to retain and pronounce. As Miss Smallpeice shows, for instance, how much more pleasing is *Stellaria* than *Stickwort*. Latin names are practically fixtures; common names are constantly in process of manufacture, just as the makers may fancy, so that nomenclature soon becomes chaos. Some of our old common names are pleasing, but too many are otherwise.—A. D.

Camellia reticulata.—Although this species, like several others once common in collections, has given way to the more regularly-formed flowers of the Italian raisers, it is well worthy of the attention of cultivators. Its flowers, of a light crimson tint, are large and semi-double, and the foliage, of a dull green colour, is minutely serrated at the edges. The plant blooms with greater certainty if it is afforded slight heat and moisture when making its growth. If placed out of doors in the month of May, it should stand in half shade and be well syringed after hot days. Camellias are all the better for having the pots sunk to the rims in beds of coal ashes or fine gravel when standing in the open, or, failing this sort of root protection, they should have slates or tiles placed around the pots on the sunny side.—F. M.

Rhododendron argenteum.—One of the most beautiful Rhododendrons which opens its flowers in February and March under glass is *R. argenteum* (grande), a native of Sikkim. In the south-west, where it is found to be quite hardy, the flowers appear at a rather later date. The massive corymb consists of from 20 to 30 campanulate white flowers, each measuring across the mouth about $1\frac{1}{2}$ inches and 2 inches in depth, white, with a dark stain at the base, and sometimes the white is suffused with pink. The foliage is green, with deep veins. As a greenhouse or cool conservatory plant, this species is of great value. The late Captain Mangles succeeded with it at Vale Royal, Haslemere, by having it planted in shaded borders, covering the plant with mats during bright sunshine as a hindrance to the

formation of too early growth and flowering, the spring frosts having an injurious effect on the delicate flowers. The captain was an enthusiastic cultivator of Himalayan Rhododendrons, and spared no trouble in getting good results from his plants. The ordinary cultivator will, however, be content to afford them greenhouse treatment. Repotting is not called for annually, although an inspection of the drainage materials and a slight renewal of the surface soil should not be omitted each spring just as growth has begun. Pots just large enough to accommodate the root mass comfortably and a potting soil consisting of pure hard peat two-thirds and sandy loam and silver sand, to afford porosity, will meet the needs of this and other species. The plant should be kept under glass till all danger from frost is past, remembering the earlier the growth is made and matured the earlier the plant will flower the next year. Some beautiful trusses were shown at the meeting of the Royal Horticultural Society on the 27th ult. by Mr. L. D. Godman of South Lodge, Horsham.—F. M.

Meconopsis cambrica plena.—Holding, as we do, one of the largest stocks of this fine plant, and having given special attention to it, I may be allowed, perhaps, to state the result of my observations in regard to it. In the first place, there seems to be an idea that there are distinct forms, including double orange, double yellow, and semi-double. Our original plant, planted on a rockery, was our first object-lesson to the contrary. The first year it was the desired deep orange and densely double. The second year it sported semi-double and light yellow, almost the shade of the parent wildling, and the following season went back again to the very double orange flower. Plants in nursery beds have shown the same sportive character, some plants at one part of the season showing only a few threadlike petals in the centre, and then later throwing large, globular, tightly-packed blossoms of either yellow or orange, sometimes even bearing both types at one and the same time, thus dispelling the idea of any further permanent sport. We find that it succeeds remarkably well either in sun or shade, but that it prefers a moist strong soil. When thus suited it is never out of bloom, after once commencing, till severe frosts set in. It is a very pretty cut flower, lasts well, and from its novel tints proves very attractive in the market. Strong plants are easily increased by division.—J. STORMONTH, *Kirkbride, Carlisle.*

ROUND ABOUT A GARDEN.

THE BULLFINCH IN THE GARDEN.

THERE is no more charming British bird than the bullfinch. Especially at this season of the year, when bright flowers are so few, and more especially in the fruit garden, where the nakedness of lingering winter is emphasised by the rows of bare trees and bushes, the rich ruby breast of the bullfinch, glowing like a lamp amid his brown surroundings, strikes a keynote of rare colour, which compels admiration 40 yards away. It is at about the same distance, too, that it usually compels a charge of shot; for of all birds the bullfinch—at the present of all seasons, and in the fruit garden of all places—is most detested by the gardener. And there is grave reason to believe that the gardener is right.

POST-MORTEM EVIDENCE.

There are some apologists of the bullfinch, indeed, who confuse its conduct among the fruit trees with that of the tits, and aver that the bird only attacks such buds as are already infested with grubs or maggots. But, apart from the fact that there are no grubs or maggots in buds at the time when the

bullfinch makes his worst raids upon the prospective crop of the following summer, post-mortems which have been held upon his remains, after he has been killed in the act, show that his end was justified from the gardener's point of view; because the crop is always in such cases more or less tightly packed—according to the length of time he had been at work before vengeance overtook him—with the plump green hearts of sound buds.

"GUILTY."

Almost equally damning evidence may be procured against the bullfinch by the simple experiment of giving to a caged bird a few twigs of Gooseberry or Plum trees. The prompt and workmanlike manner in which he will at once proceed to strip off and devour every bud convinces you at once that this is his natural occupation. The shape of his beak, moreover, offers testimony against him; for it is manifestly curved—with a tendency to imitate a parrot's bill on a small scale—for the purpose of shelling off the dry outer cases of the buds. If it was intended for dissection of the buds, so as to get at a concealed grub or other tiny creature, it would need to be of a very different shape, needle or chisel-pointed, like that of a tit. On all points, therefore, the bullfinch must be condemned as guilty of the wholesale destruction of the buds of fruit trees.

THE FLOWER GARDEN, TOO.

Nor does the bullfinch confine his unwelcome attentions to the fruit garden. Very often he commences operations upon the Honeysuckles and the Japanese Golden Ball Plant, which produce their buds very early in winter, as well as upon ornamental varieties of foreign Plum trees. The Almond is another early joy of the flower garden of which the bullfinch robs us, and, of course, at the same time he is busy with the Almond's brother, the Peach, in the fruit garden. There, however, his favourite victims are, in order of time, the Gooseberry, the Plum, and the Medlar, though in order of the bird's liking for the buds, I think that the Medlar should come first. And whatever plant the bullfinch is engaged upon expedition and thoroughness are his characteristics. If one could discover a bird that would clear bushes of, say, green fly, in the businesslike manner that a bullfinch clears them of buds, gardeners might be asked to subscribe for a life-size golden statue of their benefactor, to be erected in the central hall of the Natural History Museum at South Kensington. Under an attacked fruit tree which overhangs a path, the gardener, on the other hand, might sometimes almost be justified in bringing out his besom to sweep up the brown bud scales which the bullfinches have scattered on the ground.

NEW EVIDENCE FOR THE DEFENCE.

After all this it might seem that no hand could be raised in favour of the bullfinch in a garden, charming and beautiful as he is. We might even consider the advisability of reviving the ancient custom by which churchwardens used to be empowered to pay twopence for every "hoop"—as the bird is usually called in districts where he is a familiar plague—brought to them dead. Yet I have lately received letters from two correspondents who once regarded the bullfinch as an enemy to their fruit gardens, but latterly have discovered reason, as they think, to adopt a different opinion, and it is

in the hope of getting precise evidence on the point raised in favour of the bird that I have brought his case before the expert readers of THE GARDEN.

"BENEFICENT BULLFINCHES!"

One of the writers says that in his garden there are certain old and unsound, worthless Damson trees, as well as a number of young and valuable fruit trees, which are carefully cultivated; and he finds that the latter are never touched, although every year the bullfinches come freely to the old, worthless trees, in spite of the fact that these are much closer to the house than the others. From this the conclusion is suggested that bullfinches only take the buds of old and weak trees, which are really cumbering the ground and might be removed without loss. In the other case my correspondent had had little experience of bullfinches, until one year they came to his garden in some numbers and set to work stripping an old fruit tree of buds. In the following summer that tree had such a crop of fruit that it fell down!

AN INTERESTING EXPERIMENT.

Now these, I take it, are pleas worth investigating on behalf of the bullfinch, for, even if it may not be found that the bird will refrain from attacking young and healthy trees when old and weak ones are not available, yet, if it is really the case that bullfinches will leave good trees alone if they can get bad ones to attack, those who love birds as well as fruit might utilise the fact. It might not always be possible or advisable to leave an old tree or two for the bullfinches to play with, but some of us might be able and willing to do it. And, since various kinds of Plum make excellent hedges and the Gooseberry thrives also in a hedge—where, indeed, it makes pleasant patches of green long before the Hawthorn is in leaf—the experiment might be worth trying (or carefully watching where it is already in unintentional operation) whether such a hedge in or near a fruit garden will attract the attention of the bullfinches away from plants of value within. It is quite possible that a wild bird should prefer food that grows under natural conditions, and find the succulent buds of highly cultivated plants unsuited to its taste where simpler fare can be obtained.

WOULD PESTS MULTIPLY?

It is even possible that the same principle might govern the action of the various insect pests which attack our fruit trees. On the other hand, it is at least equally possible that the insects, breeding freely under natural conditions in the hedge or the old neglected trees, where they would escape insecticides and other gardening operations, might become a greater trouble than ever. Perhaps, even, there are many experienced readers of THE GARDEN who are fully aware that the vicinity of wild fruit trees or a Plum hedge has a bad effect on a fruit garden. Even in the case of the bullfinches it may be that unrestricted liberty to pick the buds of a few trees or of a fruit tree hedge might attract them to the vicinity in larger numbers and so make the state of the garden worse in the end. However this may be, it is such a pleasant surprise to find that some people quote their own gardening experience in favour of the bullfinch among the fruit trees that one would like to have the fullest light thrown on the matter. E. K. R.

NOTES ON HARDY PLANTS.

HEPATICAS.

ANEMONE HEPATICA is widely distributed. Its northern limits are the Pine woods of Sweden and Russia, even including Lapland; the southern limits the mountain woods of warmer Italy, from whence it was introduced into England during 1629. Amongst the typical plants, with charming blue flowers, are found here and there those colour forms that are delightful in our spring gardens. These little plants have not been plentifully planted or so well used as they deserve. This perhaps is not to be greatly wondered at when small roots are not infrequently retailed at 6d. or even more apiece, a price which does away with the idea of the planting by hundreds. Seeing that they may be imported with greater facility than even the Christmas Rose, as they are very plentiful in many places and pack in small bulk, Hepaticas should be more frequently offered in sensible quantities at cheaper rates than has hitherto been the case. Imported plants should be put in soil immediately they are received, as drying injures the roots. The first year's flowers after planting are almost certain to be plentiful, but a decrease may be noticed in the second spring owing to the root disturbance. After that, soil and site being to their fancy, the crowns increase. The illustration shows an excellent way of planting these spring and even winter flowers. Until lately a rough plot of ground, Professor Balfour has already had the wild garden here laid with grass walks and planted up with woodland plants, as Linnea, Epigaea, Scillas, many Primulas, and other plants that enjoy the partial shade given by the thin stand of Pines, &c., above. Anemone Hepatica likes the sunshine of the early months, hence in planting in thinly-covered woodlands, as here, the plants should be irregularly massed in the more open spots rather directly under the canopy of evergreen trees. Planted thus a charming effect results, recalling the beauty of the plants in their native woods. In planting the point of the buds should be level with the surface of the soil. The distance apart may vary, and it is more natural when it does. Where close masses of colour are desired, 6 inches from clump to clump is far enough. Weeds must be kept down. A large quantity of plants is required if satisfactory results are to be obtained from Hepaticas in spring bedding. If used alone they should be put about 3 inches apart. A bed of the red, white, and blue flowered varieties looks well. The white should come between the blue and red. Snowdrops should be put between the clumps, and may be pulled out when they have passed out of flower. Hepaticas like a good deep soil, and do not care to be shifted about so frequently as the exigencies of formal gardening often demand. A freer style of bed in which Hepaticas are mixed with clumps of Winter Aconite, Snowdrops, Narcissus minor, minimus, and Harbinger Primrose, with a groundwork of small-leaved Ivy, is attractive throughout the spring months.

Hepaticas are useful for bordering the paths of rock gardens. At Edinburgh they have grown for years from tiny crevices, where they lose their leaves in summer, but produce flowers abundantly.

The most plentiful single-flowered Hepatica is the typical blue-flowered form, white is scarce, and the beautiful deep rose most expensive of all. In the double-flowered forms, which, as a rule, are hardly so freely flowered, the above is partially reversed, lilac in this case being scarcer than the red. The double white Hepatica is hardly to be thought of yet for woodland planting.

There are other forms, but many are unobtainable in quantity. Mr. Boyd of Faldonside,

Melrose, has long grown an interesting form, intermediate between double and single flowered, and having large outer or guard petals. There are also several interesting leaf variations to be met with. *A. H. marmorata*, now scarce, has very markedly blotched leaves. The American *Hepaticas*, which occur in great quantities on the mountains of Carolina, Tennessee, and also in Canada, &c., where they are much used in the preparation of patent medicines, are not equal to the European forms for garden use. Usually met with as forms of *A. H. acutiloba*, their leaves differ somewhat from the Continental form. The flowers are frequently more starry in outline. *Anemone angulosa* is occasionally known as *A. transylvanica*, which indicates its East European distribution. Several fine varieties have been raised from this close ally of the long-known *Hepatica*, and they appear to be more freely flowered than the type, which produces fine flowers much larger than those of the *A. Hepatica*. In many gardens it is, however, a sulky plant, refusing to flower freely, although slugs may have sometimes a good deal to do with this scarcity of bloom. D. S. FISH.

Royal Botanic Gardens, Edinburgh.

THE DROPMORE ANCHUSA ITALICA.

As a former worker in the Dropmore Gardens, I was greatly interested in the illustration and appreciation of this beautiful plant. I can heartily endorse all that Mr. Fitzherbert says of its beauty and utility. During the seven years I was at Dropmore it was, as now, greatly admired by all who saw it; in fact, some of the numerous visitors to the gardens who did not ordinarily care much for herbaceous plants, and came solely to see the conifers, found themselves voicing its praises. Throughout the decade or so that Mr. Herrin was in charge of Dropmore he gave so freely of it to all who asked that at one time this *Alkanet* must have been fairly common; and, indeed, Mr. Fitzherbert's note suggests as much for, in speaking of its relative hardness, he remarks of the "many cases where the Dropmore variety has failed to appear again in the spring after dying down." I am surprised at this implied tenderness, for Mr. Herrin always had enough and to spare. But its propagation is so easily effected that this half-hardiness should not prove detrimental to its extended culture. I believe Mr. Fitzherbert

to be in error in stating that the plant under notice originated at Dropmore. I always understood that it was given many years ago to Mr. Frost, Mr. Herrin's predecessor at Dropmore, by Mr. Hubbard of the neighbouring Blythwood Gardens. A. C. BARTLETT.

A NEW ARABIS (ROCK-CRESS).

(*A. ALPINA FLORE-PLENO FOLIUS VARIEGATIS.*) The form of Rock-cress with double flowers sent out by M. A. Lenormand, the well-known seed and bulb grower at Caen, some five years ago was already a great improvement on the common *Arabis alpina*, and is now much valued by all lovers of hardy plants. The first-class novelty which also originated in M. Lenormand's cultures, and is announced this season, will prove an equally valuable addition to our list of garden favourites, as it may be grown with little trouble by persons of all classes and without any protection. In addition to the beauty of its pure white, perfectly double, delicately-scented flowers, which are borne on long slender stems, and as well adapted for cutting as are those of the green-leaved form, the splendid variegation of its foliage renders it, even when the flowering season is over, a most decorative plant. It is vigorous in growth and very free flowering. Mr. G. Schneider, 17, Ifield Road, Fulham Road, S.W., is distributing this novelty in this country. It is a plant that will probably become as popular as the other varieties. It may be used for edgings, in which way it shows itself to great advantage, and in that case should be planted at about 10 inches apart.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

COOKING POTATOES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have read in various papers lately a great deal about Potatoes and the best ways of cooking them, but it appears to me that very few people understand how the tuber should be cooked to get that firm, dry, and mealy (not mashed) appearance so much desired, and the true flavour. A few days since I had some of a

variety that came out thirty or forty years ago, and they were far before some of the newer varieties for flavour, and quite equal in appearance to them when cooked. Some say peel the tubers and let them stand in water for several hours; others, boil them in their skins to get their full flavour. Of course, there is a great difference in the flavour of varieties, but to take them all round—early, midseason, and late—I think there is no better way than the following for cooking them: Let the tubers be of much the same size as possible, peel very thinly (this is one of the chief points), put in a saucepan of cold water, boil slowly from fifteen to twenty minutes, and, after boiling for ten minutes, add a little salt. When about three-parts done strain the water off, return the saucepan to the fire, and finish by steaming. Keep the cover quite close. By cooking them in this way the Potatoes keep their colour for several days and do not lose their dryness or flavour. At our local flower show in August last I entered in the competition for a dish of cooked Potatoes, for which I gained the first prize. The Potatoes were put on the show table about 7 a.m., and remained there till 8 30 p.m., and were just as white and fresh when they were taken off as in the morning, while the others, of which there were a dozen or so dishes, had without exception turned dark and lost their flavour. N.

HARDY CYCLAMENS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have read with great interest the articles in THE GARDEN on the hardy Cyclamens, which do very well and flower abundantly here. I was much surprised to see it stated in Mr. Barr's letter that *Cyclamen Coum* and *C. ibericum* flower in the autumn. I think I may safely say this is not correct. In Robinson's "English Flower Garden" it is mentioned that it blooms before the Snowdrop and keeps on until the middle of March. I find that to be the case here. We have now masses of flower in the stones edging the herbaceous border, and also in the kitchen garden. Three other kinds are grown—*C. hederæfolium*, which blooms in September, and which is grown on stones at the foot of a hedge and a large mass in a wood, the foliage just now is very beautiful; *C. vernum* or *C. repandum*, which blooms in the spring; and *C. europæum* in summer.

Bryn Bella, St. Asaph. JOHN TERRINGTON.

[With this note came a bunch of flowers of *C. Coum*, very pretty with their pink and white colouring, and leaves of *C. hederæfolium*. The Cyclamen leaf is often as beautiful as the flower, so finely veined and marbled with colour.—ED.]

APPLE PEASGOOD'S NONESUCH.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In THE GARDEN of the 25th ult., page 117, "J. Francis" asks if the judgment of "A. D." re Peasgood's Nonesuch Apple is to be accepted. From my own experience I quite agree with him that on some soils it succeeds very well, and is, as every gardener knows, a splendid variety for exhibition, but too large for dessert and not sufficiently certain to grow for profit. I think it a mistake to use it so much as a parent in raising new varieties. Thirteen years ago I planted a small orchard, and, being anxious to try it, I planted two trees, one standard and one bush, and though I have twice lifted the bush tree these have only yielded a peck of fruit. Mine is a light soil with very poor subsoil. For some years I have had good crops of Ecklinville, Lane's Prince Albert, Stirling Castle, Warner's King, Cox's Pomona, and Wellington. Of dessert varieties I find the following bear well and regularly: Cox's Orange Pippin, King of the Pippins, Worcester Pearmain, Duke of Devonshire, Lady Sudeley, and Blenheim Orange. I have forty varieties, and only Peasgood's Nonesuch and Winter Queening are failures. The latter I was



ANEMONE HEPATICA IN THE WILD GARDEN AT EDINBURGH.

advised to plant by a nurseryman. It does well on clay soil, but is useless on light land. Some of the newer varieties doing well here are Royal Jubilee, Chelmsford Wonder, Bramley's Seedling, Newton Wonder, and Allington Pippin.

Nutfield Court, Surrey. T. W. HERBERT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I do not find it necessary in giving an opinion on the merits of this much overrated Apple to quote the opinions of others. Nurserymen who have to sell trees will not emphasise the demerits of varieties and opinions given by reputed high authorities some years since would be materially qualified now. How many would grow Peasgood's Nonesuch were not the fruits so handsome? But as a useful Apple it is a long way behind many others. It is a coarse, almost rampant, grower, a moderate fruiter, and the fruits do not keep. My original reference to the variety was in relation to the mistake I held had been made in using it as a pollen parent on Cox's Orange Pippin, as the only result had been to increase the size of the latter to the destruction of its fine flavour in the progeny. It is a mistake that no raiser will make again. If I wanted Apples to look at I should grow Peasgood's Nonesuch, but if I wanted Apples for use I certainly should not.

A. D.

GRAPE WHITE LADY DOWNE'S.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—On page 62 of THE GARDEN for January 28 you invite the opinion of those who have grown White Lady Downe's Grape. I grew it once in Ayrshire. It was grown in the same vinery as Black Lady Downe's, and the description of the black variety answers in every detail except colour. It is a late Grape, with a firm and juicy pulp. However, it had one fault, a rusty or grizzly appearance, and not a pure white, which no doubt accounts for its being so seldom met with.

Aberlour.

W. J.

WILLOW TREE BY NAPOLEON'S GRAVE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In reply to "Enquirer" in THE GARDEN of February 18, there is a willow at The Manse, Dunning, N.B., planted by my father, the late Rev. Dr. Wilson, which I have heard him say was a cutting from a willow taken from that in St. Helena. I have no doubt, if it is still alive, that cuttings could be got from it by permission of the present minister, Rev. P. Thomson, D.D.

Wakefield.

H. MACLEAN WILSON.

SHOW CARNATIONS AND PICOTEEES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. Horner's letter on the subject of show Carnations in THE GARDEN of February 18, reads rather more like an apology than a justification for the use of the paper collar in exhibiting these flowers. He says that these collars are to judges a handy means of lifting Carnation blooms to examine whether the calyx has been allowed to split too far. Now I think this is by no means a sound reason for allowing the paper collar to be used. Why should a bloom require a collar, however unobtrusive, to lift it by, and why, in the absence of the collar, should it be necessary to lift the bloom by its petals in order to examine the calyx, or for any other purpose? Nature has provided every Carnation with a stem. Would it not be much better to exhibit the flowers with their stems cut to such a length that they could be conveniently handled? Surely it is the paper collar itself that hides the very calyx which the judges should wish to inspect, and so, for that reason, creates the necessity for its own use. If "in the good old days" the calyx was inspected only to see that the exhibitor had taken the pains to tie it in time to prevent splitting, then

I think those old days were little better than the present. A flower that would naturally burst does not, to my mind, possess any more merit in itself from the fact of its having been carefully tied so that such bursting is prevented.

If we are to have our Carnations judged only by their petals and the amount of skill displayed by the dresser in selecting and arranging them, everything else—i.e., natural formation of the bloom, habit of growth, quality of stem and calyx, and scent being ignored—then I contend we are doing our best to spoil these beautiful flowers. The object of exhibiting blooms should be to encourage the raising and growing of a class of plant that will be useful as well to those who merely grow them to beautify their garden borders as to the thousands of people who want them "only for decorative purposes indoors." Blooms from plants that are not worth growing, either in the open or under glass for decoration, should not be allowed, when dressed, to take prizes at a show.

W. A. WATTS.

NON-BURSTING CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. Burrell, in his reply to "W. I.'s" request for the names of twelve non-bursting Carnations, remarks that the percentage of these varieties also possessing hardiness, free flowering, and a good vigorous habit, is small. This is only too true, and as long as Carnations are allowed to be shown dressed on paper collars so long shall we find raisers aiming solely at colour and form of petal, and bringing out numbers of weakly and bursting varieties, unsuitable for all purposes except showing, where such defects are not taken into account.

The number of sound reliable plants for growing in the open (my remarks apply only to that way of growing them) is very small. On looking through the three replies to "W. I.'s" letter I see the names of several that I have tried and found wanting. Mr. Charrington does not make it quite clear whether his list is for growing in the open or under glass. Probably he intends it for the latter, as Hidalgo, for instance, would not, I think, be satisfactory in the open border in many places.

Mr. Burrell heads his list with Countess of Paris, and I quite agree with him in all he says in praise of this variety, and, contrary to his experience, I have always found it roots freely when layered. Mrs. Reynolds Hole and Cassandra have dropped out of my collection. George Maquay, raised by Mr. William Robinson (who also raised the Countess of Paris), is far and away the best white I have found, and I was surprised not to see it in either of the lists. There is always a difficulty with yellows. Germania was an entire failure with me. Of the dark colours, Uriah Pike (strictly speaking, a Tree Carnation) soon gave place to Agnes Sorrel, and now the latter, which I find has rather a poor constitution, and inclined to disease, is giving place to a very promising seedling. I know of no scarlet variety that is entirely satisfactory. Hayes Scarlet and Isinglass are perhaps as good as any of the old-named varieties, but I have discarded them both. Hidalgo, Lady Hermione, and Lady St. Oswald have been tried and have not been grown a second year. Fancies and Picotees I have found anything but satisfactory. Tenella is a fairly good yellow ground. Roseleigh Gem is the best heliotrope, but cannot be called a non-burster. The soil here is a strong loam over clay, and I dare say many varieties that will not grow satisfactorily here might flourish in a different soil and climate, and so much depends on cultivation, too. I do not say that a confirmed burster may be grown so as not to burst, but a non-burster can, and very often is, made to burst by wrong treatment, and the bursting of varieties that generally have a sound calyx is, I think, most often caused by the roots being allowed to get too dry when the flower-buds are forming. I have experimented

with plants that were as perfect as possible in this respect, placing two side by side in pots under glass in similar soil, and I found that by withholding water from one when the buds were swelling that plant produced burst blooms, while all the flowers on the other, which was watered carefully, opened perfectly. Yet I have so often heard it said that a wet season causes Carnations to burst.

Bromwylfa, St. Asaph.

W. A. WATTS.

MARGUERITE CARNATIONS FOR CUTTING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In reference to Mr. A. W. Watts's letter on Marguerite Carnations for cut blooms, I have always found the following method successful. For flowering in October and later, sow the seeds first week in March, and again the first week in April for a succession of flowers. Sow the seeds in pans of a light, rich soil, consisting of two parts good loam, one of leaf soil and sand. After filling the pans with soil, give a good watering at least two hours before sowing the seeds. Place the pans in a house or frame with bottom-heat, cover the pans with glass and paper until germination takes place, when the seedlings can be gradually exposed to light and air.

When large enough prick the seedlings off in shallow boxes, 2 inches apart each way, using the same kind of soil as for seed pans. Grow them on in the same house until established, when they can be placed in a cool frame and gradually exposed and hardened off. Prepare, by well digging and manuring a good bed or border in a sunny position, ready for the seedlings to be planted out, 1 foot apart each way, the first week in June. Stake the plants as they grow to keep them from getting broken.

From the beginning to the end of September lift the plants with a good ball, transfer them to pots suitable to size of plants. After potting give the plants a good watering through a rose, place them in a cool frame, and shade from bright sunshine. When the plants have become established in the pots they can be removed to a light, airy house, having a temperature of 45° at night and 50° by day. When the pots are filled with roots feed occasionally with weak cow manure and Clay's Fertilizer. Marguerite Carnations are never satisfactory if forced in too high a temperature. Keep the plants sturdy, and there will be no difficulty in having a good supply of useful flowers. I may add I have always had the flowers keep fresh for a good time when cut and placed in water.

G. W. SMITH.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Replying to "W. A. Watts" (THE GARDEN, page 117, on the 25th ult.), I feel sure there are many who could relate the same experience with regard to the Marguerite Carnation. The flowers do not last long, either on the plants or when cut. There is no doubt that they are a very pretty class, and deserve to be grown, but to class them with ordinary Carnations is a mistake. They are more closely related to the Indian Pinks (*Dianthus chinensis*), and should always be treated as annuals. For pots or for the open border they make a good show, and last as well as many other plants; but to recommend them as winter-flowering Carnations is a great mistake, more especially to give cut flowers. All Carnations lose their petals very soon after fertilisation takes place, and as the Marguerite varieties seed so freely the cause of the flowers not lasting is not far to seek. I have found when fertilising for seed that flowers of the best winter-flowering Carnations will go off very quickly after impregnation has taken place. Among a batch used for seeding the flowers will stand up and look fresh long after those that have been successfully impregnated have withered away. I might mention that the variety Miss

Joliffe with me has always failed to produce seed, and it may be owing to this fact that it continues to produce flowers successionally, and that they last so well. We often hear of some varieties lasting longer than others, and I think if they were examined it would be found that those going off first have perfect seed-vessels, while those which hold their flowers longest will be found to be abortive.

To conclude, I may say that there is no doubt that many have been misled by the descriptions of the Marguerite Carnations. A. HEMSLEY.

ORCHIDS.

ORCHID GROWING FOR BEGINNERS.

(Continued from page 11.)

HEATING.—When new houses are being constructed plenty of pipes should be placed therein so that it may be possible to maintain a correct temperature during excessively cold weather without having to make the pipes very hot. An extra row or two of pipes will make all the difference, and when a system is being fitted the extra cost is not of much moment when the ultimate benefits are considered. In a house of the dimensions named, four rows of 4-inch pipes on either side would answer all requirements. I strongly recommend the same amount of piping being placed in the cold house, then it will only be necessary to warm them slightly to maintain the requisite temperature of a minimum of 50° during cold weather; they will winter far better than when less piping is used. Although excessive heating of pipes is detrimental to all Orchids, yet those requiring the higher temperatures are less injured than the cool growing ones. Generally speaking the quantity of pipes that I have named would not require to be very hot to heat such a house as the one mentioned, even during the severest weather, when the structure is being used to grow stove Orchids. The next important detail is to see that the heating system is well under command. The main should not run through a house on its way to other houses without being encased in a covered channel. All the pipes exposed should be under control, this can be easily accomplished on all the branch pipes by having brass-seated screw-down valves on the flow and return. I would not recommend the cheaper throttle valves, when they have been in use for a while they often get out of order and are practically useless.

PATHS.—No path should be laid that is of a dry nature, the more humid and earthy the paths and other low parts of the house the better will it be for the plants. I prefer iron gratings nearly the full width of the path, a space to the depth of 12 inches being excavated under them, then they are always dry and clean to walk upon and plenty of moisture can arise continually from the natural soil below.

SIDES TO PATHS.—These may be made very ornamental without great expense by making a continuous imitation rock V-shaped pocket, about 10 inches deep and 6 inches wide at the base and 9 inches at top, inside measurements. To do this old bricks and parts of bricks, clinkers, pieces of concrete or stone may be used; new material is not required. Roughly build them into the desired shape, using some fairly good mortar, the rougher the top and outer side is kept the better and more picturesque will be the effect; leave plenty of holes at the base to allow the water to pass away freely. When the whole has become set make up to the proportion of two parts sand and one of good cement, and roughly plaster on to the depth of half an inch. When it is partly set probe it with a few pieces of Birch-broom all over to give it a rough rock-like appearance, then sprinkle a little stone dust over; this will make a good imitation rock. It

is necessary constantly to dip the pieces of Birch in water when probing the plaster. When it is all properly set fill the pockets with some good retentive soil, and many plants such as the Rex Begonias, Ferns, &c., will be more at home in this condition than they are in pots. This arrangement will add much to the attractiveness of the houses and also prove very helpful in maintaining a humid atmosphere.

W. P. BOUND.

(To be continued.)

CŒLOGYNE CRISTATA.

(A USEFUL WINTER-FLOWERING ORCHID.)

HAVING read with interest your sound advice to "Constant Reader" about growing one of the prettiest and most easily cultivated Orchids (*Cœlogyne cristata*), I venture to send you a photograph of a group. The plants are grown precisely the same way you advise, excepting that when they have finished their growth I remove them

close of the year. When in this position water was gradually diminished. The plants were kept rather dry until they were placed in warmth for flowering.

The flowering season may be prolonged where there are several plants by inducing some to start into growth early. Opinions differ as to the treatment of the old pseudo-bulbs. Our method is to take some away every year. In this way they never get crowded. Few plants are more useful for placing in rooms than this *Cœlogyne*, where they last a long time. We have had them in the house here for a fortnight, and they have not suffered in the least. In a cut state I have found them more enduring when not given too much heat. This is of much importance when needed for sprays, &c. As regards soil this consists of fibrous peat and loam, about equal parts if the loam is sandy—add more peat if otherwise—with enough sand and charcoal to keep it open. I like to grow them in pans; in this way large masses may be



A GROUP OF CŒLOGYNE CRISTATA IN THE GARDEN OF SIR ALFRED REYNOLDS, WELWYN, HERTS.

to a cooler and drier house for about three weeks to give them a slight rest.

Welwyn, Herts.

L. LAWRENCE.

(Gardener to Sir Alfred Reynolds.)

UNDOUBTEDLY this is one of the most useful Orchids grown. Flowering as it does at the dull season its value is increased. Few Orchids lend themselves to all classes of cultivators so much as this. Those with only small glass accommodation may grow it most successfully, providing they can give it warmth when making new growth, and this can be afforded in pits, &c., where Cucumbers are grown. When the growths are well advanced more air should be given; this helps to ripen the bulbs and makes them flower more freely. I am convinced that many complaints of the plants not flowering arise from this cause. Many growers pride themselves upon large bulbs, but frequently these fail to flower, while the small wrinkled ones are all that can be desired, hence old-established plants are the most satisfactory. Many years ago the late Mr. Spong of Lindisfarn, Bournemouth, was most successful with this and *Dendrobium nobile*. When growth was matured they were placed on a shelf in full sun in a vinery at rest, and kept cold till the

had without the pan being seen. Amateurs with small means should grow this and other free-flowering Orchids, as they do not need a lot of room, and are of easy culture.

Forde Abbey Gardens, Chard.

J. CROOK.

RECENT PLANT PORTRAITS.

THE *Botanical Magazine* for March contains portraits of

Romneya trichocalyx.—Native of California. This is a very handsome form of the well-known *R. Coulteri*, from which it differs mainly in its hairy calyx.

Dendrobium regium.—Native of India. This is a very beautiful species, with bright rose-coloured flowers.

Rosa Hugonis.—Native of Western China. This is a very elegant single Rose, with pale yellow flowers.

Echmea lavandulacea.—Native of the West Indies. This is a rather dull-coloured Bromeliad of merely botanical interest.

Nicotiana forgetiana.—Native of Brazil. This is a very beautiful species of the Tobacco family, with loose racemes of medium-sized bright rose-coloured flowers. It was sent to Messrs. Sander



WATERFALL IN THE ROCK GARDEN CONSTRUCTED FOR MR. G. S. S. STRODE, NEWNHAM PARK, PLYMPTON, DEVON.

of St. Albans from Brazil by their collector, Mr. Forget, but is mainly interesting as being one of the parents with the white *N. alata* or affinis of the beautiful strain of hybrids known as *N. Sanderæ*, which were so much admired at the last great Temple show, and seed of which next year will be distributed over the entire horticultural world, so that plants of them should appear in every good garden.

In the first number of the *Revue Horticole* for February figure five varieties of hardy open-air *Chrysanthema*, named respectively: 1, *Primèvere*; 2, *Acajou*; 3, *Le Pactole*; 4, *Rubis*; and 5, *La Vestale*. They bear the distinctive name of *Chrysanthèmes décoratifs*. They were raised by M. Delaux of Toulouse, and are said to be the earliest-blooming members of the entire family.

The February number of the *Revue de l'Horticulture Belge* gives a fine double plate of a deep rose-coloured, small-flowered form of *Azalea indica* named *Hexé*, which is said to have rose-coloured instead of green calyces. These retain their beauty for some time after the flower falls. Also a curious little toy Orchid, *Gengorchis pumila*, with tiny flowers of merely botanical interest.

W. E. GUMBLETON.

THE ROCK GARDEN.

ROCK GARDEN-MAKING.

WATERFALLS.

(Continued from page 132.)

AS a rule waterfalls descending in one single sheet are monotonous, and the more they are broken up the better. But sometimes it may happen that the supply of water is so limited that it is desirable to show it off to the greatest advantage. In such cases I find it very advantageous to spread out the water as much as possible. The best way of doing this is to construct a sort of basin which collects the water and then spreads it out over a smooth level

surface—a sheet of glass, for instance—which will have the effect of producing a very thin transparent sheet of water. I have obtained such a sheet of falling water 4 feet wide by this means from a supply pipe only three-quarters of an inch in diameter. That all such artificial appliances must be completely hidden from view goes without saying, for it would be ridiculous for any straight lines or level surfaces to be visible in work supposed to represent wild natural scenery.

WATERFALLS WITH AN ABUNDANT SUPPLY OF WATER.

When the water supply is abundant it is much easier to turn it to good account in the rock garden than when the supply is limited. It is not necessary with an abundant supply to take care that every drop of falling water can be distinctly seen. A dark cave for a background and similar devices can, therefore, in such a case be dispensed with. A most effective way of showing off a waterfall with an abundant supply is to let the water descend over a series of rough irregular steps resembling natural rocks, and constructed in such a way as to correspond with the strata of the adjoining rocks. Sometimes it may happen that the water supply is very abundant at times, but scarce during dry summers. In such a case it is best to be prepared for the worst, and to provide a dark background, against which the water would show to greater advantage when it is scarce.

Such an arrangement is shown by the illustration representing a rock garden I constructed a short time ago for Mr. G. S. S. Strode at Newnham Park. It will be seen that in this case the waterfall is so arranged that the water does not fall down straight, but dashes against large boulders, which break the fall and divert its course. The second illustration shows the same waterfall by itself, and from this it will be seen that a dark background is provided, so that if—as occasionally happens—the water supply is a scanty one, the falling water is still shown to the best advantage. The rock garden at Newnham Park was constructed entirely with stones found on the estate, consisting mostly of boulders, with a weather-beaten surface darkened by ages of exposure. The stone is known locally as “Devonshire Marble,” and consists of dark grey limestone veined with quartz.

The photographs from which the accompanying illustrations were prepared were taken soon after the completion of the work.



WATERFALL AT NEWNHAM PARK.



THE GREEN WALK, DRUMMOND CASTLE

From a Painting by Mr. E. A. Rowe

In the next chapter I propose to deal with another important form of water in the rock garden, namely, bog gardens, and how to make them.

Elmside, Exeter.

F. W. MEYER.

COLOURED PLATE.

PLATE 1270.

IN THE DRUMMOND CASTLE GARDEN.

THE coloured illustration which we give this week needs but few words of comment. It is from a painting by E. A. Rowe, and depicts one of the quaintest features of a beautiful and interesting place. Drummond Castle is the Scottish residence of the Earl of Ancaster.

CROCUS CHRYSANTHUS VARIETY WARLEY.

ONE of the prettiest of the Crocuses we have seen was shown by Miss Willmott at the first February meeting of the Royal Horticultural Society. The illustration shows the natural size of the plant and its freedom of flowering. It is one of those daintylittle early flowers that we like to see in a pan in the cold alpine house, such as the one in the herbaceous ground in the Royal Gardens, Kew. The outer segments are stained with a purplish colouring, but the centre is white, pure yellow at the base, and the pistil is a warm orange scarlet. It is a beautiful flower.

THE ROSE GARDEN

PRUNING VARIOUS ROSES RECENTLY PLANTED.

IT will not be advisable to prune the newly-planted standards and dwarfs until about the last week in March. The vigorous growing varieties such as Ulrich Brunner should be cut back to within 6 inches of where budded, taking care that the cut be just above an eye, which should point outward. Both standards and dwarfs should be treated in the same way the first year. Under this category of vigour we should place Mrs. Paul, Margaret Dickson, and Reynolds Hole. Varieties such as Mrs. B. R. Cant, Duchess of Albany, and Lawrence Allen should have about 4 inches of their growths retained, whilst Mildred Grant and Ulster are cut back to the most prominent eye, even if close to the ground. The weaker the grower the harder it is pruned. This seems paradoxical, but a moment's reflection will show you that a weak plant can perfect one or two new growths better than it can five or six. The variety Setina is known also as climbing Hermosa.

This season cut back to about 18 inches of base; next season merely remove tips. It is well to cut out any soft pithy shoots both upon the standards as well as on the bushes. Ulster is a Hybrid Perpetual, Duchess of Albany (a sport from La France) is a Hybrid Tea.

HOW TO PRUNE ROSES.

(Continued from page 148.)

BOURBONS.—The Bourbons should be pruned in the same way as advised for the strong-growing varieties of the Hybrid Perpetuals and Hybrid Teas.

Provence, Moss, and China.—These hardy Roses should be well thinned out to prevent their growths becoming crowded, and the remaining shoots shortened one-half their length.

July, however, all these strong-growing Roses should be examined, and every year some of the shoots which have flowered be entirely removed, and the best of the strong young growths encouraged to take their place, cutting out altogether those not needed. The object of thinning out the shoots that have flowered, and tying or laying in the strong young shoots of the current year, is to enable the latter to make better growth, and by exposure to light and air to become ripened before the winter sets in.

Austrian Briars.—Beyond removing the dead, injured, and worn-out shoots, the Austrian Briars should not be touched at all with the knife.

Scotch Briars.—These require similar treatment to the Austrian Briars.

Hybrid Sweet-briars.—The Sweet-briars need no spring pruning at all; but in July, after flowering, it will be well to cut out some of the older shoots where crowded, in order to give the younger ones a chance of making better growth.

Pompon.—The free-flowering miniature Pompon Roses should have their shoots well thinned out, and those left shortened one-half their length.

Rugosa or Japanese Roses.—This section requires but little pruning. Some of the old and crowded shoots should be entirely removed, and the younger growths either tied in or moderately shortened.

Banksia.—The pruning of this particular class of Rose differs somewhat from that of nearly all the climbers in that they require but little thinning. After flowering, the strong shoots of the present year's growth not required to furnish the plant should be removed, and the rest of them tied in and slightly shortened. Care should be taken not to cut away the twiggy growths, as the flowers are borne on these laterals.

Gallica or French Roses.—Only the striped varieties in this class are now grown. They should be pruned in the same way as recommended for the Provence Roses.

Single-flowered Roses.—As these belong to so many different sections, it is impossible to give the exact treatment all of them require. Those of vigorous growth should be pruned as advised for other climbing and pillar Roses, while the bush and dwarf varieties should be only thinned out and the points of the remaining shoots removed. The few dwarf Hybrid Perpetuals bearing single flowers should, however, be rather severely pruned.

ROSES IN COLD PITS.

PLANTS potted last October should now be placed in the pits if they are not already there, and be pruned without delay. If the plants are

plunged in a bed of leaves the gentle heat afforded will help root action considerably. Where this is not possible then plunge the pots in ashes. Give air every day, except in frosty weather, but close the pits about 3 p.m.; even if the sun is shining brightly no harm is done. Keep up the practice of closing early; the moisture which quickly arises on the glass will prevent any injury being done to the foliage. These plants when showing bud may be useful for placing in the greenhouse, but they will be far better in the pits, even though they bloom somewhat later. Residents near large towns and cities would find the cold pit an excellent place for growing Roses; they have the plants more under control, and the foliage is more easily cleansed.

P.



CROCUS CHRYSANTHUS VARIETY WARLEY.

(Given an award of merit by the Royal Horticultural Society on the 14th ult., when shown by Miss Willmott.)

2. ROSES WHICH REQUIRE VERY LITTLE PRUNING.—To whatever section a Rose may belong, if it be grown as a climber or as an arch or pillar, it will not do to cut it back hard, or it will bear but few if any flowers. But there are also certain other Roses which, although not of extra strong growth, will not flower satisfactorily if cut back at all severely. It is by cutting away the flowering wood of such kinds that the greatest mistakes in pruning usually occur.

Climbing, Pillar, and other strong-growing Roses.—In the spring these need very little attention beyond securing the best shoots in the positions they are required to occupy, and to shorten back or remove altogether any other shoots which may not be required at all. Within

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

PLANTING GLADIOLI.—Though some of the new varieties are expensive there are plenty of good and cheap kinds to be had in the various sections. They may be planted from this onwards till the end of April, and may be grown in beds, or groups in the border, or as dot plants over a groundwork of Verbenas, Drummond's Phlox, or Violas. To obtain really good spikes some pains should be taken in the preparation of the ground, but manure should not be placed close to the corms.

Gladioli for Forcing.—With the exception of the small early-flowering varieties, Gladioli are not often forced. The Bride, a pure white variety, is generally forced for cutting, but I have had Gandavensis in flower in pots in April, potted early in January, and plunged in a bed of leaves or a pit where there was a little warmth. As soon as the flower-spikes were visible they were moved to a greenhouse where there was a night temperature of 50°, and were brought on quickly. They will not bear strong heat, but the bed of leaves appeared to suit them.

Gladioli from Seeds.—A deep, rich, well-drained soil is the most suitable for Gladioli, and whoever begins their culture should raise seedlings. It often happens that seedlings raised at home have a longer life than purchased corms, especially when these are of foreign growth. Sow the seeds in drills 1 inch deep and 1 foot apart to give room for surface stirring. In suitable soil under good cultivation some of the seedlings may flower the second year, and all will flower the third year.

The Garden Anemone (A. coronaria).—The St. Brigid Anemones are a very fine strain, which originated in Ireland. They thrive best in a light rich soil, deeply worked and manured some time before planting or sowing. Seeds may be sown any time in March thinly over well pulverised land in shallow drills. Mix the seeds with dry sand, and rub them together to separate them before sowing. If sown thinly the plants may be left to flower where sown. They will flower in winter or early spring.

Pruning: Its Object.—If we take a broad view of the subject, pruning has a far-reaching effect, and affects more or less pretty well all cultivated plants. In the case of fruit trees its main object is to build up a symmetrical fertile tree in as short a time as possible, and in the early life of the tree the branches are cut back to secure a foundation, and when that object has been accomplished the fertility can be secured by judicious thinning in summer, and a little

shortening in winter. On some subjects it is well to have no preconceived ideas, to be entirely free from what is called rule of thumb, that induces a person to go along the beaten track without a thought of where it is leading. It is necessary sometimes to stop and think. Any tree can be made to assume pretty well any shape by pruning and training, but the simplest form is the

getting firm at the base, cutting back to four leaves. This prevents the roots running riot and getting out of hand and necessitating shortening.

Seasonable Advice.—Thick sowing is a mistake now that nearly all seed firms test their seeds and only send out those seeds which can be relied on to give a fair percentage of growth. Then, again, the man who makes two blades of grass grow where only one grew before is only a public benefactor in a limited sense, as overcrowding is nearly always a mistake in its general application.

Depth of Covering for Seeds.—No hard and fast line can or should be laid down. So much depends upon the character of the soil, the time of sowing, and even on the seeds themselves. Less covering is required early in the season, when there is no lack of moisture in the land, than later, when the soil is dry and showers not frequent; 2 inches, for instance, may be a sufficient depth for early Peas, whilst later, when the sun has gained power, 4 inches may not be too much, and other things may be worked on the same principle.

Potting Composts.—For all soft-wooded plants, especially those which have strong roots, good loam should form two-thirds of the bulk. The remaining third may be composed of very old manure, leaf-mould, and sand. This may be described as a sort of universal compost for all soft-wooded plants, which include Geraniums, Fuchsias, &c. For special plants at the last shift bone-meal, soot, or a little chemical manure may be added, but in no case should more than 1 lb. per bushel of the bulk of chemicals be added. One word more. Regard this as experimental work, and keep a note of your doings.

Thinning Fruits.—"That the exception proves the rule" is as true in gardening as in other matters the accompanying illustrations show. Although this cluster of fruits of Apple Emperor Alexander, grown by Mr. H. W. Roberts, Watford, was considered so fine as to receive a cultural commendation from the Royal Horticultural Society, it serves to illustrate a wrong method of culture. In the first place, if other branches were allowed to ripen as many fruits in so small a space as the one figured, it is safe to predict that the tree would soon be crippled. Again, when the fruits are left unthinned, as in this case, they do not attain their full size or develop their true colouring and flavour. So, while this remarkable cluster obtained commendation from the Royal Horticultural Society's fruit committee (probably chiefly on account of its being unusual), it does not illustrate a practice that can be recommended.



A CLUSTER OF FOURTEEN FRUITS OF APPLE EMPEROR ALEXANDER.

best generally, and in the case of Apples, Red Currants, and Gooseberries in the open garden the open-centred bush is the best, whilst Pears, Plums, Cherries, and Black Currants are better as open-branched pyramids.

The Overpruned Tree must have a short life comparatively, and not only so, but it is needlessly expensive in the matter of labour, because when the tree from thoughtless overpruning has kicked over the traces it is necessary to check the roots to induce the tree to bear any fruit, but the common-sense view is to prune in summer as soon as the young shoots are

GARDENING OF THE WEEK.

FLOWER GARDEN.

MOST Roses must now be pruned. Rambling Roses on pergolas, chains, tripods, and what not should be about the first to be dealt with, for they commence growing early, and strong active buds are easily rubbed off in disentangling the shoots, hence the advantage of rough pruning and removing dead wood and spray during the winter, as advised in an early calendar. Even if these matters were then attended to there will be some unripe shoots to shorten, weaker ones to spur in and thin, and small shoots to cut out.

TEA ROSES, Hybrid Teas, and Noisettes on south walls must also receive immediate attention in the same way and for the same reasons, but those on more sunless and cooler aspects and in the open may with benefit wait a little, and so may the Hybrid Perpetuals, &c., so as not to excite dormant buds too early, for we are not yet out of the wood in regard to late destructive frosts. So-called

GARDEN ROSES generally should be cleared of last year's flowering wood, useless twigs, and dead growths, thinning and shortening according to the nature of the plant and its object. Give a dressing of a suitable artificial manure, and apply a good mulch of rotten farmyard manure, and they will take care of themselves without much further attention until after the flowering season.

SPRING BEDDING.—Beds and borders furnished with the various spring-flowering plants and bulbs should be kept as clean and tidy as possible. Keep down weeds, pick off dead leaves and faded flowers, fix neat stakes to those needing support, keep the grass verges in perfect trim with edging-iron and shears, clip plant edgings as required, and mow the grass if necessary. In this district, however, it is too cold for the latter yet. Bear in mind that in paying close attention to these apparently minor details there lies to a great extent the difference between a pleasing and satisfactory bed or border and a slovenly and unattractive jumble.

SWEET PEAS.—Make another sowing in pots—the final one—on lines laid down in a previous calendar. If brought on without a check even these will come into bloom a considerable time in advance of those already or about to be sown in the open, and will form fine clumps. In this sowing we arrange to include most of the new and choice sorts, and they generally turn out well, blooming freely and comparatively early, and lasting in bloom until killed by frost. Those sown early and now through the soil should be kept near the glass to induce a sturdy, hardy growth, so as to be in readiness for planting out in due time and favourable weather. JOHN ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

JACOBINIAS.—Cuttings of these most useful winter-flowering plants should now be inserted. Use a light, sandy soil. It is, perhaps, preferable to root them singly in small pots, but where space is limited place three or four cuttings round the sides of 3½-inch pots. In a propagating frame with bottom-heat they soon root. To obtain large flower-heads it is necessary to restrict the growth to one or two shoots in some of the varieties. To obtain good specimens, two or three plants should be grown in a pot. *J. chrysostephana*, with its golden yellow heads of flowers and dark green leaves, is one of the best, especially for a cool greenhouse. *J. magnifica* vars. *carnea* and *pohliana*, *J. ghesbreghtiana*, and *J. coccinea* are all worthy of a place in any collection of greenhouse plants. The latter is better if grown in an intermediate house till in flower. Similar treatment will suit cuttings of *Peristrophe* (*Justicia*) *speciosa*. They require pinching several times during the growing season to form bushy plants.

COLIUS THYRSODEUS.—The introduction of this plant has proved a valuable addition for conservatory decoration in winter, lasting in flower from December to March. The colour, a rich blue, is scarce during this season. Cut off the spikes as the plants go out of flower, and place in an intermediate house. As it is a quick-growing plant, propagation should not be commenced before May or the beginning of June.

GRASSES.—These are invaluable for mixing with or as an edging to flowering plants. The majority are increased by division, one or two by cuttings. *Carex brunnea variegata*, *Isolepis gracilis*, and *Eulalia japonica variegata* should be taken in hand about this date, divided up, and potted. Insert cuttings of *Panicum variegatum*, and the tops of *Cyperus alternifolius*. *Arrhenatherum elianthum* (bulbous) is a useful variegated Grass for spring decoration, notably with bulbs, being now at its best. The division and potting of this plant is best done early in January.

FREESIAS AND OTHER PLANTS.—After flowering Freesia bulbs are often neglected. This is just the time they require the most attention if good flowering bulbs are expected for the following year. Place on a shelf or other light position in the greenhouse, and give occasional doses of manure water. Cut back Reinwardtia, and place in a temperature of about 60° to produce cuttings. Cut back plants of *Solanum capsicastrum* intended to be grown on for another year. Insert cuttings to obtain a batch of young plants. Repot *Saxifraga Fortunei*, dividing the clumps if more are required. Fibrous loam, leaf-mould, mortar rubble, and sand form a suitable compost to use. It is best grown in a cold frame. Sow seeds of *Schizanthus*, *Mignonette*, and *Lobelia tenuiflor* for succession. Do not neglect the forced bulbs after flowering.

If taken care of, properly ripened off, and grown in the reserve garden for a year or two the majority of them can be used for forcing again.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

PINE-APPLES.—Fruits which are approaching ripeness should, if possible, be moved to a light, dry house, which will improve them both in colour and flavour. The earliest Queens now require to be treated very liberally. The atmosphere must be always kept in a humid condition by frequently damping the paths and walls of the house. The roots must not be allowed to become at all dry. Give them copious supplies of liquid manure and guano water, and, when syringing in the afternoon, the water may be weakly diluted with either of these manures and syringed about the stems and surface of the pots. Discontinue syringing when the fruits are in bloom, and keep the atmosphere moderately dry. Plants which were potted last month must be pushed on as rapidly as possible. The roots are now entering the new soil, and it will be safe to give them a thorough watering. Syringe them freely on fine afternoons, and close the house early. Maintain at all times a moist atmosphere, and give every encouragement during the coming season to build up robust and vigorous plants. Take off suckers from plants which have fruited, and pot and start them at once. Give them the same liberal treatment as advised above. Do not allow the plants to get dry at the roots or potbound before repotting. The temperature on mild nights may be kept at 75°, but 5° lower will be sufficient if the weather is cold. Exercise great care in ventilating during the spring months, admitting plenty of air before noon on favourable occasions, but avoid cold draughts. Take care the bottom-heat does not fluctuate.

CUCUMBERS.—Plants which were raised early in the year are now fruiting. Top-dress them as soon as the roots appear on the surface with a mixture of two parts loam and one of horse manure which has been well fermented. Do not add too much at one time, but rather a little at frequent intervals. Do not allow the plants while young to carry more fruits than are required, or premature exhaustion will follow. Regulate the growths, and do not allow them to ramble too far before pinching. Keep them well supplied with moisture both at the roots and in the atmosphere. Syringe them occasionally with a weak mixture of soft soap and sulphur to keep off red spider. Make preparations for a planting in cold frames. Splendid crops may be grown in this way at a minimum cost and trouble. Make a hot-bed with stable litter and leaves. Cover the bed with a few inches of half-rotten leaves. Take full advantage of sunshine by closing early in the afternoon after charging the pit with moisture.

HARDY FRUIT GARDEN.—When pruning and training are finished, attention may be given to cleaning and forking over fruit quarters and paths. Much good may be done to old plantations by forking in wood ashes, burnt garden refuse, or anything of a stimulating nature which may be at hand. Lose no time in burning all prunings and cleanings from fruit trees, so that eggs and insects may be destroyed before becoming active. E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

ONIONS.—In every garden considerable supplies of Onions are indispensable, and the importance of obtaining sufficient crops can hardly be overestimated. The first difficulty likely to be encountered is an attack of the Onion fly, which begins its mischief by laying eggs on the young leaves when from 1 inch to 3 inches high. In a few weeks the maggot is formed and emerges from the leaves, boring its way down to the root of the plant and effecting its speedy destruction. In order to circumvent these operations I have for a number of years adopted the plan of making the soil very fine and drawing it over the young plants until the tips only appear above ground. This is done when the Onions are 2 inches high, and the process is repeated ten days or a fortnight later. I do not claim that this method ensures complete immunity from attacks of the Onion maggot, but I can safely affirm that since its adoption I am every year able to secure an abundant supply of good Onions. As soon as a dry bed can be obtained for the seed the main crop of Onions should be sown on ground that was early cleared and well prepared in autumn. As ground intended for Onions cannot be too firm it will only be necessary to stir the surface slightly so as to procure a fine mould for covering the seed. Tread firmly before drawing out drills 12 inches apart and about 1 inch deep. Sow very thinly that no thinning out may be required. At this period any disturbance to the plants will be to their disadvantage. When the seeds are sown drawn in the soil with the feet, treading firmly; complete by running a rake lightly over it parallel with the rows.

LEEKS.—In order to keep root crops conveniently together my practice is to sow the main crop of Leeks near the Onion ground. The main sowing may now be made as advised for Onions, only the ground need not be quite so firm. When thinning time arrives those drawn out are planted for the main crop. Plants that remain in the seed row will be ready very early for flavouring or other purposes.

CABBAGE AND BRUSSELS SPROUTS.—Good sowings of each should now be made on ground that is in good condition, for to obtain first-rate Cabbages and Brussels Sprouts they must be quickly grown. If raised on poor seed-beds and planted on indifferent ground the result can never be satisfactory. Slowly-grown Cabbages and Sprouts lose all the sweet crispness so much to be desired in succulent vegetables. Sow not too thickly in drills 3 inches apart and about 1 inch deep. Enfield Market and

Sutton's Imperial are sorts that can always be depended upon for summer use. Favourite varieties of Brussels Sprouts are Sutton's Exhibition and Matchless.

SEED POTATOES.—Look over stores of these. Select tubers of suitable size for sets to be in readiness for planting. Special care must be used when handling in order not to damage the young shoots. Spread out thinly on the floor of shed or cellar, where they can be kept cool and free from frost.

LETTUCE.—Prick out young Lettuce plants near a sunny wall or other sheltered position. Sow more seed on borders between rows of early Peas. J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

ORCHIDS.

CHYSIS.—*C. bracteescens*, *C. aurea*, *C. Limminghei*, and *C. levis* are all deciduous epiphytal Orchids from South America, and in their native country are oftentimes hanging from the larger branches of trees by their roots alone. They are a beautiful class of plants, and well worth cultivating, so also are the handsome hybrids *C. Sedenii* and *C. Chelsonii*, both raised by Mr. Seden. As these plants are now fast developing their flower-spikes, which push up along with the new growths, they should be afforded more generous treatment. Suspend them at the warmest end of the Cattleya house, and afford them moderate quantities of water until the flowers fade. At that time the plants commence to emit new roots, when, if necessary, they may be repotted. Chysis may be cultivated either in pots or Teak wood baskets. I prefer the ordinary Orchid pot, as the plants are more easily managed, and the roots less disturbed when potting becomes necessary. The pots should have perforated holes just beneath the rim, so that with wire handles attached to them the plants are easily suspended well up to the roof glass. Afford ample drainage, and use a mixture composed of two-thirds sphagnum moss and one of fibrous peat, adding a little leaf-soil, broken crocks, and coarse sand. Chysis may be propagated by cutting through the rhizome at the base of the second pseudo-bulb behind the leading growth. This may be done at the present time, and after the plants have done flowering they may be divided and repotted separately. In the intermediate house

THE BRAZILIAN MILTONIAS, as *M. spectabilis*, *M. moreliana*, &c., are now growing and rooting freely, and, in consequence, stand in need of increased quantities of water at the roots. Keep these plants shaded from all strong sunshine or the foliage will become too yellow and unsightly. The Colombian *Miltonia vexillaria* and its numerous distinct varieties, also the beautiful hybrid *M. bleuana* and its variety *nobilior* are also in full growth, and plenty of water should be given each time a plant becomes dry. With increased light and more natural warmth their surroundings are kept fairly moist. The rare *M. Endresii* has done flowering and is now at rest, therefore until growth recommences very little water is needed at the root, and if not carefully applied the growths are extremely liable to turn black and decay. All the Miltonias mentioned should have fresh air in abundance whenever the weather is suitable. I may add that at Burford the lower ventilators directly under the plants are always open whenever the external air is above 45°. When the leaves of *M. vexillaria*, its varieties, and hybrids are tinged with a soft bronzy purple it generally indicates that the plants are in vigorous health. Now that plants of *M. vexillaria* are growing fast they should be examined occasionally, as some of the leaves stick to each other so firmly as to check the youngest leaves, causing them to crinkle and become disfigured. When this is observed liberate the leaves by passing a smooth thin piece of wood or the handle of a budding knife between them, and at the same time see that none of the spikes stick to the leaves. The deciduous section of

CALANTHES will soon require attention as to repotting, therefore it is advisable to get in a sufficient quantity of good yellow fibrous loam and place it upon the potting bench or some other convenient spot where it will get just warm, but not too dry, and it will be ready for use when required.

Burford Gardens, Dorking.

W. H. WHITE.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, London.

SWEET-SCENTED PERSIAN CYCLAMENS.

Mr. Strange sends from Aldermaston flowers of a sweet-scented race of Persian Cyclamen, to

which he has been devoting much attention of recent years, and the result is most promising. A rosy pink variety has the perfume of the Blue-bell, and the colour is bright, with, perhaps, a little too much mauve in it. Mr. Strange also sends flowers of Sutton's Giant White variety, which is well known as one of the finest of its race.

SEEDLING AMARYLLIS.

Mr. E. A. Hall sends from The Gardens, Holm-rook Hall, Cumberland, a flower of a seedling Amaryllis, conspicuously bright in colour, which is a glowing scarlet, and shapely, but the raising of Amaryllises has been brought to so great perfection that a variety must be of exceptional excellence to merit a distinct name. The seedling sent is not worth this, but we advise our correspondent not to cease raising new flowers; it is interesting and sometimes a profitable pastime.

PRIMULA OBCONICA.

Mr. Finlay sends from The Mount, East Layton, Darlington, flowers of *Primula obconica* in many colourings. Our correspondent writes that he has been working to obtain a beautiful strain of flowers for some years. The colours lose none of their charm when seen under artificial light. Some of the plants have as many as three dozen spikes of bloom on them.

FRENCH BEAN VEITCH'S EARLY WONDER AND EARLY FLOWERS.

Mr. Crook sends from the Forde Abbey Gardens, Chard, Somerset, pods of this excellent early Bean, and well remarks: "This is surely an Early 'Wonder'; the pods were produced in seven weeks from the time of sowing the seed, and grown in boxes near the glass." Mr. Crook also sends flowers of the blue Scillas and Iris reticulata, which are always welcome.

VIOLET MRS. ARTHUR.

Messrs. Blackmore and Langdon, Twerton Hill Nursery, Twerton-on-Avon, Bath, send flowers of a new double Violet, which is called Mrs. Arthur. The colour is a deeper blue than in other Parma Violets, and the fragrance is very rich. Our correspondent describes the plant as "a better and more vigorous grower than any other double Violet we know." The Violet is so sweet a flower that we cannot have too many varieties, if these are distinct from, or an improvement upon, those already in existence.

CINERARIAS.

Messrs. Clibrans, Altrincham, Cheshire, have sent a selection of Cineraria flowers representing their strain. They write: "We have specialised in Cinerarias together with other flowers for some years, and our efforts have been rewarded with some excellent strains." We agree with Messrs. Clibrans' remarks, for the blooms sent certainly indicate a high standard of excellence. They are large, finely formed, and the colours are rich and clear. Particularly good are the purple and deep rose flowers, and those having white centres surrounded by crimson-purple and blue respectively.

EARLY DAFFODILS FROM IRELAND.

From the Ard Cairn Nurseries, Cork, Mr. W. Baylor Hartland sends a delightful lot of early Daffodils, and writes on the 27th ult. that "they were grown on grass land, and could have been gathered ten days earlier." Mr. Hartland says Cervantes and North Star were fully open under glass before Christmas. Among the Daffodils were the following varieties: Tuscan bicolor, Golden Fleece, Buttercup, Claddagh, Ard Righ, Pallidus præcox, Early Bird, and Cervantes; the latter Mr. Hartland considers the best of all.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

NAMES OF PLANTS.—W. H. E.—Being packed in dry cotton wool and tissue paper the specimens were far too shrivelled up to identify. All that can be said is that No. 1 is a *Selaginella*; 2, may be *Festuca glauca*; 3, *Dendrobium undulatum*. While anxious to oblige our correspondents in the naming of specimens, we wish to point out that in many cases the task is rendered far more difficult by, in the first place, only a tiny scrap being sent; and, next, the absence of any information concerning the plant itself, whether grown in the open ground or under glass. When the fact that there are thousands of different plants in cultivation is taken into consideration, our request for the fullest information can only be regarded as a reasonable one. —J. W. Y.—1, *Odontoglossum pulchellum*; 2, *O. Rossi majus*; 3, *Crinum Moorei*; 4, *Liriope spicata*, often known as *Liriope graminifolia*.

NAMES OF FRUIT.—W. W.—1, Lamb Abbey Pearmain; 2, Reinette Grise; 3, Bess Pool. —W. Phillips.—The Apple is Tibbett's Pearmain. —H. E. J. de Jersey.—1, Cat's-head; 2, Norfolk Beefing; 3, Wiltshire Defiance.

SHORT REPLIES.—R. G.—Write to the Director. —A New Subscriber.—The "English Flower Garden" is the book; 15s.; to be had from William Robinson, 17, Fumival Street, Holborn, London. —Etainé.—"Botanical Names for English Readers," by Randal H. Alcock. London: Reeve and Co. (1876); also first supplement to Nicholson's Dictionary.

BULBS IN BOXES (A. Oldfield).—(1) Yes, boxes of the size you mention would suit the Crocuses, Tulips, &c. Instead of making holes in the bottom of the boxes we should prefer to make them in the sides near the bottom. You need not have 3 inches of drainage, $1\frac{1}{2}$ inches would be ample. Use crocks, that is, pieces of broken flower pots, and be careful to cover the holes effectually with them. You need use neither sand nor charcoal. (2) Tubs would be more suitable than either boxes or pots, and more attractive also. The size would, of course, depend upon the size of your plant. When this is taken out of the ground measure across the mass of soil and roots, and then allow an inch more on either side; this will give you the diameter of tub required.

REPOTTING MASDEVALLIAS (B. F. Hull).—You should wait till about the middle of September before repotting your plants. The temperature you have afforded is correct, but from the autumn till early in March they require little water, only sufficient to prevent the leaves from shrivelling. For potting a good compost consists of two-fifths fibrous peat, the same of chopped sphagnum, and one-fifth leaf-soil, to which add a fair sprinkling of coarse sand and small crocks. Mix the whole well together. For the erect-flowering forms pots are the best receptacles, half filling them with rhizomes well chopped placed over a few bottom crocks. Pot rather lightly and surface with chopped sphagnum, keeping the top

of the moss and the base of growth on a level with the rim of the pot. If the surface soil is sour work out as much as possible and resurface with the above compost. This may be done at once. Masdevallias should be well shaded from strong sunshine after the middle of this month, and give plenty of fresh air.

GARDEN SOIL AND MANURES (Weston).—Give, if possible, at once a 4-inch or 6-inch dressing of clay over the entire garden. This, with deep digging when the clay had become well pulverised by frost, would enable the soil to grow almost anything for years to come. We hardly know whether it is real guano or merely the residue from compressed sewage rendered dry and powdered. If the latter you may apply it as freely as you wish, sowing it broadcast over the surface, and finally fork it in. If the latter employ it at the rate of a half peck to 12 square yards or 14 square yards. These are usually given in addition to horse or cow manure dressings, and as you cannot obtain cow manure the next best is horse manure, fairly decayed and unmixed with peat moss, which is not suited to light soils generally.

PLANTING GARDEN (W. R. Bright).—You might try a Gloire de Dijon Rose on the shed. You appear to have manured the land fairly well, and have probably broken it up deeply. If you divide the border into 4 feet spaces you might plant one with Cabbages, another with Lettuces, a third with Onions, and so on, following with Turnip-rooted Beet, Canadian Wonder Beans, Early Horn Carrots, Brussels Sprouts, or anything you may fancy as far as the land permits. If you find the Gloire de Dijon succeeds on the shed you might next season try others, but you are not far enough out of the smoke to plant any Roses but the hardiest. Pinks and Carnations will do well, as will also Canterbury Bells. Chrysanthemums ought to do by the fences better than Michaelmas Daisies. Cactus Dahlias will do, and Sweet Williams. We are assuming you know the value of frequent surface stirring during growth. You might lay in a little stock of lime for the use of the slugs, &c.

ANNUALS, &c., FOR BED (J. Cet).—The arrangement cannot be greatly improved upon unless you worked upon the system of one bed one colour—as, e.g., *Ageratum* for one, yellow *Antirrhinum* for another, Stocks for another, and so on. You could modify this by using a margin 6 inches wide to each bed of Tufted Pansies of a colour distinct from the primary colour in the group. No. 4 bed is that requiring readjusting most in the matter of colour perhaps, and we would prefer the *Dianthus* in No. 4 taking the place of the Stocks in No. 1. The only other suggestion we have to make is that you endeavour to have your plants of one colour. No. 1, we note, contains mixed *Antirrhinums*. In place of this you might plant a crimson-flowered sort, if you retain the Stocks in the position now shown. With these more definite self-tones you will obtain greater effect and probably greater satisfaction.

KALANCHOE FLAMMEA (Halifax).—You say nothing of the size of your plants or of the pots in which they are growing, but there is little doubt they will bloom in due course, for even small pieces in 2½-inch pots will often flower. They need a good light position and a warm greenhouse temperature—that is to say, a structure which at this season does not fall below 50°, and runs up 10° or even 20° with sun-heat. If in small or comparatively small pots a little weak liquid manure occasionally will be beneficial. Though they need a regular supply of water at the roots, it must not be overdone, and, in common with most plants of a decidedly succulent character, a fairly dry rather than a moisture-laden atmosphere is best for them. As a rule, this *Kalanchoe* flowers from the latter part of May onwards, so that there is yet ample time for your plants to develop their blossoms.

HYDRANGEA PANICULATA (*Coupar*).—This flowers best on the current season's growths, so cut the shoots down to within two or three buds of the base. Strong shoots will then break forth, and these will flower next summer.

CARNATIONS DISEASED (*G. I. M.*).—The leaves are badly affected with "spot," which is not likely to kill the plants; but the swelling at the base of the leaves is evidence of the presence of eelworm. If this pest has spread over the plants the case is hopeless. It is best to destroy all affected plants, as there is no cure for it.

RHODODENDRON DYING (*J. C. A.*).—The old wood is firm and there is a chance of saving it. Remove the plant to another spot at once, preparing a bed of peat and good soil for it, and giving a mulching of well-rotted manure after planting. Rhododendrons sometimes make a very hard ball of soil, and the roots may not have got away from the ball of soil it had when you first planted it. If such is the case, loosen it with a pointed stick to give the roots a chance to strike out into the fresh soil. About the end of May cut back to the three year old wood. It will be two years before it will flower much.

SLUGS AMONG ALPINES (*D. V.*).—Place half a bushel of fresh lime in a 36-gallon cask, thoroughly stirring it, and allowing it to settle before it is used. You may use a rather coarse rose watering-pot when applying it; or, as many slugs are merely in hiding beneath the tufts of the plants, a surface dusting of freshly air-slaked lime will be excellent. In applying the lime-dust raise the tufts where these are most dense, and strew it well beneath; give also a dusting among such tufted things as the Phloxes. Soot may be also applied freely in the same way, and over the plants, too. A few applications at intervals of several days will be necessary.

PLANTING CHRISTMAS ROSES AND BORDER AURICULAS (*E. H.*).—Plant Christmas Roses in August and September, as then the new main roots emerge from the rhizome, and the object is to so plant that the work is completed before these roots are produced. Two sets of root fibres only are produced each year in these plants. Christmas Roses are replanted extensively in spring as the new foliage appears, and in this way the chief roots are cut and damaged and die back often to the crown, the plants taking a long time to recover. On the other hand, when planted early in September, for this is generally early enough, the plants hardly feel the shift. The Auriculas you should obtain at once and plant without delay.

JAPANESE CHRYSANTHEMUMS, **M. HENRI JACOTOT AND JEANNE DELAUX** (*F. W. H.*).—The two sorts are quite distinct, although they were both raised by Delaux, who, as a French raiser, was very successful twenty years ago. Jeanne Delaux was introduced in 1882, and M. Henri Jacotot in 1883. The former is described in the Centenary Edition of the National Chrysanthemum Society's catalogue, published in 1890, as "dark crimson-maroon, quite velvety in appearance, very distinct and effective, blooms large, florets narrow, long and straight, spreading, mid-season, rather tall." The description of the second variety, from the same source, is as follows: "Rich crimson, shaded gold, medium size blooms, florets reflexed, early and dwarf."

LATE-FLOWERING SINGLE CHRYSANTHEMUMS FOR CHRISTMAS (*Chrysanth.*).—As to the system of culture to follow with the late varieties of the single-flowered Chrysanthemums, we can only refer you to the advice given elsewhere under "Answers to Correspondents." Follow the advice therein given to the letter, and with the singles you should do exceedingly well. Procure the following varieties: Framfield Beauty, deep rich velvety crimson; Kate Williams, yellow, flushed terra-cotta; America, white, shaded

blush; Disraeli, primrose, very free flowering; Mrs. Baillie, chestnut; Mrs. John Platt, lovely rose-pink; Nora Davies, reddish terra-cotta; and Treasure, a small-flowered bright yellow sort. Purity, white, with bold green eye, is a capital plant when pinched for the last time in mid-July.

PROPAGATING DISCOVERY POTATO (*J. H. W.*).—What you propose to do with your lb. of Discovery Potato, or indeed any other variety, in gentle warmth, to cause them to sprout from the eyes, is very well, but do not put them in a dark place, but in full light. We advise you to get a small shallow box, place in the bottom a little cocoanut fibre or fine sandy soil, then put on that the tubers, sprinkle a little fine material about them, and damp them with water. That course will cause the eyes to break more evenly. Get your partitioned box or boxes, the partitions to be 4 inches square, taking care that two or three small holes be bored or burned in the bottom of each partition. Put in 2 inches of soil, and as the eyes shoot cut each one out and put it so as to be just covered in the centre of each partition. As growth is made, add a little fine soil for the shoots to root in. Keep in full light, or the growths will become drawn and weak. When from 4 inches to 6 inches in height the plants must be gradually hardened, and thus be strong, ready to lift soil and roots from each partition and be planted out, as you suggest, in rows 3 feet apart and 13 inches apart in the rows. Discovery is a tall, strong grower, and needs ample room. So far as we see you have no other course open but to leave the plants in your signal box at night and on Sundays, but probably no frosts now would harm them. After all, the produce of your plants will be much determined by the quality of the soil in which it is grown.

PLANTING VINES (*Beacon*).—We should prefer to plant the Vines inside the house. In a properly constructed vinery the front wall is built on arches, so that the roots can make their way through them to the border outside. If your vinery has not these you must knock holes in to allow them to penetrate outside if you wish them to. You would probably find, however, that if you make up a good border inside that will prove sufficient. Turves chopped into about six pieces with a spade, with lime and brick rubble and wood ashes, and a good sprinkling of bones form an excellent material. To each cartload of soil add a barrowful each of wood ashes and lime and mortar rubble and a peck of ½-inch bones. Take care that the drainage is good; broken bricks do well. Upon these place whole turves, grass downwards, then the mixed soil. Plant firmly.

CLIMBERS (*N. C.*).—You could plant Clematis montana, C. Jackmani, or C. paniculata in the position you describe. Of the three we should recommend the first, as it is a strong grower, and very pretty when in bloom. The Clematis will not cling to any wall without support, and a light wire trellis will be helpful in supporting it, while it also saves disfiguring the wall with nails. C. montana and C. paniculata require no pruning, except the thinning out of the growths in winter, if they become too thick, while C. Jackmani should be cut back in spring just before growth commences.

FLOWER BORDER (*E. H. T., Putney*).—We should advise you to devote the small 4 foot wide border to dwarf Roses, with poles in the centre for climbing Roses. Leave the large bed its full length, do not divide it into smaller ones. Reduce it, however, in width; make it either 10 feet or 12 feet wide, the remainder to be grass. We think you will get a much better effect by this arrangement. Manure the soil. You must arrange the plants in groups of colour, say, in this order: White, grey, pale blue, blue, pale yellow, yellow, orange, red, yellow, blue, grey, white, thus beginning and ending with

white. You must try and arrange the plants so that the several shades of each colour harmonise—thus, in blue begin with pale, then deep to purple, and so on with the other colours. You will probably not get the shades of colour quite right the first season, but take notes of the defects and remedy them next year. We can only give you short lists here; you ought to be able to make a suitable selection of perennials and annuals from a good catalogue. *White*, Anemone sylvestris, A. japonica, Phlox, Galtonia, Chrysanthemum maximum, Lupin, and Sweet Pea; *Grey*, Eryngium, Achillea, and Antennaria; *Blue*, Campanula persicifolia, C. carpatia, Flag Irises, Pansies, Myosotis, Gentianella, Delphinium, Lupin, and Auchusa; *Yellow and Orange*, Helianthus in varieties, Day Lily, Evening Primrose (E. nothera), Marigolds, Lilioms, Nasturtiums, and Coreopsis; *Reds*, Lobelia cardinalis, Tritoma, Pentstemon, Phlox, Hollyhock, Poppies, and Carnations.

ROSE FOR WEST WALL (*N. C.*).—A wall facing west is not a good place for a Rose, but you could try Aimée Vibert, Gloire de Dijon, Celine Forestier, or W. A. Richardson. The last mentioned is better when in a partially shaded place, as the flowers lose colour when exposed to the full sun. As an alternative to the Rose we could recommend Crataegus Pyracantha or Forsythia suspensa, both of which do well in a west aspect. By planting Ferns near the wall you will limit the plants in front to low-growing subjects. For these you could use Berberis Aquifolium, Cotoneaster microphylla, the Savin, and Skimmia oblata as a groundwork, planting Arabis alba, Alyssum saxatile, Iberis sempervirens, Helenium autumnale pumilum, Veronica gentianoides, &c., between and in front of them. If you have the Ferns in the front of the border you could plant Spiraea A. Waterer, S. Thunbergi, Brooms of sorts, Forsythias, and Ribes for flowers behind them, using a few Hollies, Yews, Skimmias, and Phillyreas for evergreens amongst the flowering subjects.

BASIC SLAG AS MANURE DRESSING (*O. W. G.*).—An application of basic slag as manure dressing made in the spring is apt to be disappointing, because, arising from its semi-metallic nature, it is long in becoming soluble. Practically it hardly dissolves at all in water, but in garden soils in which there is a fair proportion of unused dung or humus it dissolves more readily. But to get from it its full value as a manure it should be applied early in the winter and well dug or forked in, that it may be incorporated with the soil. If not applied till the spring its effect for the season may be nil. It is a good phosphatic manure, and is excellent for all descriptions of fruit, pod, or root producing plants, and is even good for leaf plants, such as Cabbages and Lettuces, all of which need more of nitrogen. To get any benefit from artificial manures the best to apply now, for we are close to the spring, is fish guano, combining in itself the three essential ingredients, phosphates, potash, and nitrogen. This is quick acting, is good for all crops, is fairly cheap, and may be applied to ground at the rate of 6lb. or so per rod. Failing that manure, get bone-flour, steamed or dissolved in sulphuric acid, and kainit (potash). Well crush the latter, then mix with the bone-flour, and apply to ground at once at the rate of 5lb. per rod. To that dressing, or equally to one of basic slag, should be added, where growth has begun by crops, 3lb. per rod finely crushed sulphate of ammonia or nitrate of soda, as these salts dissolve quickly, and when at once hoed or pointed in are readily utilised by growing crops. It is worthy of note that very liberal applications of basic slag pointed in about starved fruit trees give them in a couple of years new life and energy. The value of basic slag to some extent is in its fineness, therefore in purchasing it exceeding fineness as ground should be made a primary condition, also a guarantee as to purity should be obtained.

WATER LILY FOR TUB (*M. Millard*).—The white form of *Nymphaea caroliniana* would suit you best. *N. pygmaea Helvola* with yellow flowers is very suitable for tubs.

HEATING SMALL GREENHOUSE (*Dublin*).—To heat a small greenhouse by introducing into it a copper cylinder connected with the bath-heating boiler would be rather a poor substitute for a proper apparatus. In mild weather the arrangement proposed may add just 2° or 3° of warmth to the house, but in severe weather it would fail entirely, as then only a well-arranged heating apparatus could keep out frost. The warmth from a cylinder fixed just within one end of a house would hardly affect the remoter portion. We should not like to recommend any arrangement which, in stress of weather, would certainly prove to be sadly inefficient. If you want to heat your greenhouse securely either have hot-water pipes carried from your boiler round the house, and returning to it, or else fix a small boiler and furnace at one end with sufficient 3-inch piping attached to heat the house, when needed, securely.

GENTIAN (*M. E. W.*).—We presume by "large and small" Gentians you are referring to *G. acaulis* (large) and *G. verna* (small). It is quite possible to raise both kinds from seeds, though the process is slow and rather tedious. The seeds, if not quite fresh, germinate slowly, and often with uncertainty. From seeds sown at once your plants should appear in early summer, and if thinly sown could remain till February, 1906, before replanting. Pans of light and very sandy soil are best, the seeds to be covered very lightly indeed, and a darkened piece of glass placed on each to stay evaporation. Even strong seedlings do not flower until two or three years. If you only require a few plants these could be had for a few shillings.

CARNATIONS IN POTS (*Novice, Loyells*).—Assuming that the Carnations you have purchased are now in 3-inch pots, and have filled these with roots, as should be the case, it is time they had a shift into 5-inch pots, or, as commonly called, 48's. If you have these pots in quite new and dry, give them exposure to the weather, or dip each pot in water for a few minutes, then stand them out to drain dry before using them. Your compost for Carnations should be of the best—two-thirds good pasture loam that has been exposed in a heap for several months, the other third being composed of old hotbed manure, sifted mortar refuse, wood ashes, soot, and sand. This makes a capital compost. Put into each pot one large crock, and on that half an inch thickness of small crocks, next some of the coarser parts of the compost, and on that a little of the finer portion; then pot the plants, slightly loosening the roots before doing so. Fix the soil in round the plants fairly firm. By the middle of May a further shift into 8-inch pots, putting two plants into a pot, and using similar compost, is desirable.

TREATMENT OF LAWN (*K. J. C.*).—It is probable that the finer grasses, which are infinitely the best for forming a dense and even surface, have been overwhelmed by those of coarser growth. If this be so—and if there are tussock-like tufts in which the blades of grass may be anything from a quarter of an inch in width and upwards—the top-dressing would tend to make these grow more strongly, to the detriment of all else. It is not, therefore, as you will see, so much the abundance of the "root" as it is the quality or variety of the grasses that abound. A not infrequent grass in neglected areas is the Cock's-foot Grass, a strong tufted grass, the crowns of which are raised higher than the ordinary level, and a scythe set low down on the lawn invariably cuts into the heart of the tuft. If any such exist the tufts should be dug out, and, indeed, any coarse-growing kinds. This done, you should level up the surface by lifting the turf, raising the soil to the required level, and relaying the turf.

For filling in below the turf finely-sifted ashes may be used with fine soil. When this is finished, and any patches made good by the addition of a little fresh turf, a good rolling may be given on a dry day, and repeated in the opposite direction a day or two later. At this stage you may apply a dressing of old potting soil, and very short manure, to the entire surface of the lawn, covering it at least half an inch thick. This done, the soil may be further levelled by using the back of a rake, and finally by sweeping it in with a long broom. Wood ashes, or the fine ash from the garden rubbish fire may be used on the surface, but we do not recommend coal or coke ash for the purpose. The sweeping may be done once a week, and a good rolling on a fairly dry day as often. In a few weeks you will see what improvement exists, and if this does not meet your approval sow some good grass lawn mixture over all in April, and cover lightly with fine soil. By sending the size of the lawn to any of the large seed houses the correct quantity will be supplied. From your description, too, we think this step will be necessary to ensure a good and bright green sward.

GLADIOLUS IN POTS IN THE OPEN (*A Beginner*).—If you are really a beginner in the cultivation of these plants get from a good firm mixed seedlings. The chief items are a very rich soil, loam, old well-decayed manure, a little artificial manure or bone-meal, say a 6-inch potful to each barrow of soil, and some sharp grit. Mix all together and use in a moderately dry state. Pots of 8 inches or 9 inches diameter would be suitable for three or four bulbs respectively, the bulbs to be buried 1 inch deep. The pots should be well but not overdrained. One large-sized oyster-shell placed hollow side down over the hole in the pot's bottom will do quite well. Over this put some rough turf or manure, and then fill the pots moderately firm two-thirds their depth before placing in the bulbs. Allow a space of 1 inch or nearly so between the surface soil and the rim of the pot, so that later on when water is given there will be ample room. Not much water is required at the start, but when in free growth there must be no stint.

FIELD-MICE IN VIOLET FRAME (*A. L. E.*).—Our correspondent says that the mice are proof against traps and any kind of poison, as these have been tried and failed. We would suggest a trial of the old-fashioned figure 4 trap. We have never known it to fail when carefully baited with burnt cheese applied fresh every day. Most gardeners and garden labourers know how to make the trap. Failing this remedy we should hunt for their nests, which will not be far away, and when found they can easily be destroyed. An application of gas-tar on their tracks or runs will generally drive them away.

ANNUAL FLOWERS FOR SMALL BORDERS (*D. C. L.*).—The following hardy annuals may probably suit, and can be sown thinly where they are to flower: For flower beds—*Godetia* Duchess of Albany (white), *Lady Albemarle* (carmine), *Duke of York* (rose), and *Mandarin* pale yellow. Bed No. 2—*Nemesia strumosa* Suttoni, *N. compacta carulea*, *N. alba*, *N. floribunda*, *Nemophila insignis*, *N. alba*, *N. maculata*, *N. atrocærulea*, *Nigella damascena* (Love-in-a-Mist) (double white); *Gaillardia lorenziana* makes a neat bed; *Larkspur*, branching; *Nasturtium* Tom Thumb (distinct colouring) and *Empress of India* (crimson) makes a good bed; *Phlox Drummondii* should be sown in a box to bloom early; *Phacelia campanularia* (blue) makes a neat low bed; *Viscaria Burridgei* (white), *V. cardinalis* (scarlet), *V. carulea* (blue), and *V. cælia rosa* (rose), neat habited plants; *Leptosiphon* in variety, beautiful for small beds; *Tom Thumb Antirrhinum* in variety, to be sown in boxes and pricked out for early flowering; dwarf Stocks, Asters, Chinese Pinks, Verbenas, Petunias, and dwarf Marigolds to be sown under glass, and pricked out; blue *Lobelia*.

COW AND ARTIFICIAL MANURES (*H. G. C.*).—If your cowhouse manure contains a fair proportion of straw in it, and you add to it the chemical manures you mention, you should then bring it, very near in manurial value to the properties found in good stable manure. Horses, being so largely fed on corn, naturally give off more of phosphatic and potash matter than cows do when fed only on grass. But stable manure owes a good deal of its value to the mechanical qualities found in straw and other fibrous matter, as those things, whilst helping to keep stiff soil open and aerated, also decompose slowly, yet surely, and thus give plant food. To induce a slow acting chemical manure like basic slag to operate with more facility, it is well to sprinkle it liberally in with the manure as it is collected, and, indeed, the kainit might be added at the same time. But if the heap of manure be turned every fortnight, it should be fit for working into the soil in less than six months; indeed, in at least from three to four months. The proportions named seem suitable.

QUESTIONS ABOUT HIPPEASTRUMS (*M.*).—*Hippeastrum* bulbs are best if kept quite dry during the winter, that is, if they are not in proximity to hot-water pipes, or so situated that in any way the soil becomes absolutely parched and the roots are likely to suffer, in which case a little water occasionally is beneficial. At one time they were invariably repotted every year, but many cultivators now repot only every two or three years, and with very satisfactory results. A most important matter is that the plants, after flowering, are encouraged to make good free growth, at which time they should be placed in a light position in the intermediate house, kept well supplied with water, and given a little liquid manure occasionally. Even with all this they will not flower unless the bulbs are thoroughly ripened, and to accomplish this during the latter half of the summer they must be well exposed to the sun, and as the leaves die off less water should be given till it is finally discontinued. By July they may, if necessary, be removed to a frame facing the south, and the lights can be left off, except to shelter from heavy rains. It will, however, be necessary to take them into the greenhouse when the nights get cold. The winter temperature should be from 45° to 55°, or a little more. The different instructions are simply individual opinions, and we prefer the treatment above recommended. The brownish patches on the outside of the scales seldom give any trouble, but if very pronounced they may be kept in check by dusting with sulphur.

MAKING A BOG GARDEN (*Bog*).—A stream is by no means essential. Water, however, is absolutely necessary, and if you can overcome this initial difficulty, you can add a beautiful feature to your garden. You do not say whether the position is far away from the house or whether there is a garden supply of water near. Ultimate success largely depends on this latter. If there is not much difficulty in conveying a water supply to the spot, your chief obstacle is overcome, and you may encompass your bog garden with perforated pipes that would dribble the water into the bed. Even though you cannot do this, you may, provided the rainfall could be conducted to the bed, achieve a more modified success with many plants. The only other way, if you live far in the country, would be to sink a well, insert a pump, erect a tank, and from this latter convey the water to the bed through the perforated pipes already mentioned. We give you these different ways of overcoming the water difficulty, because you possess the one thing that is often wanting—any amount of clay. With this at command, and the bed once saturated, the rest would be comparatively simple. Now as to the arrangement and formation of the bed. You would do well to have a central excavation of 18 inches shown by the spirit level, and sloping to 9 inches at the lower side of the site. These depths would appear before the clay was put in,

the clay varying from 8 inches thick in the centre to 4 inches at the sides. The clay, prior to placing in position, should be fairly well tempered up, and in this way be watertight, or nearly so. Now as to soil for the different subjects. For strong-growing things, as *Gunnera*, *Saxifraga peltata*, *Spiræas*, &c., a strong loam with leaf soil and manure would suffice, the same soil doing equally well for the Royal Fern and others. These bolder things may appear as isolated examples in the bed or on the margin at the higher side. If arranged in this latter way, the plants, by reason of their raised position, would command attention. Then for a large class of subjects a soil mixture of peat, leaf soil, and loam, with a small proportion of very old manure, should be prepared. Indeed, such a mixture will suit a very large number of plants, as *Primula rosea*, *P. denticulata*, *P. cashmeriana*, *P. Sieboldii* in great variety, *Corydalis nobilis*, *Gentiana Andrewsii*, *G. asclepiadea* and *alba*, *Chrysobactron*, *Orchis foliosa*, *Trilliums Lilium canadense*, *Meconopsis*, *Lobelia siphilitica*, *Crinum capense*, *Iris sibirica*, *I. levigata* in variety, *Dentaria*, and many more. In addition, there should exist a sandy peat and leaf soil colony in quite the wettest part for *Cypripedium spectabile*, *C. parviflorum*, and others, in company with such *Liliums* as *superbum*, *pardalinum*, &c. Ferns, too, may occupy the sides, and in the same way *Iris levigata* in variety with the roots just reaching moisture, *I. sibirica*, and others. Such a spot may, if intelligently planted, be quite a feature in any garden.

APPLE TREE UNSATISFACTORY (*G. C. Pike*).—It is most probable that feeding is what your Apple tree does not require. If the shoots are gross and vigorous and bear no flowers the tree needs root pruning. The way to do this is to dig a semi-circular trench about 2 feet deep at 4 feet from the stem; then with a fork work away the soil from the roots, more particularly underneath, and when you come across any gross roots, especially those which go down in the sub-soil, cut them back and try and bring them nearer the surface. You say the growths are healthy, so there cannot be much wrong with the soil. Mixing wood ashes, lime, mortar rubble, and road scrapings would improve the latter. Do not mix manure with it, but give a top-dressing in early summer.

WIREWORM AND LEAF-CURL IN NECTARINES (*T. T.*).—Your Nectarine leaves are not injured by an insect, but by a fungus. When a branch is once infected the fungus continues to grow in the tissues and passes into the new leaf-buds formed each season. The appearance or intensity of the disease depends almost entirely on prevailing climatic conditions. During a genial spring, when growth is unchecked, until the leaves are fully grown, "leaf-curl" is particularly absent, whereas if a cold, damp period occurs while the leaves are young, the disease appears, and its rapid spread is favoured by alternating short spells of warm and cold weather. In the case of diseased trees the terminal shoots bearing infected tufts of leaves should be removed and burned; diseased-fallen leaves should also be burned. A second source of infection depends on the presence of spores that have wintered in the angle formed between leaf-bud and branch and in other places. These should be destroyed by spraying with the Bordeaux Mixture as soon as the buds show signs of swelling. Two sprayings at intervals of ten days should suffice. Do not use this mixture after the leaf-buds begin to expand. The mixture should be made with 20lb. of sulphate of copper and 10lb. of lime to 100 gallons of water. The sulphate of copper must be dissolved in a vessel of cold water, and the lime, which must be pure and fresh, slaked in another vessel. The contents of the two vessels should be poured together into a tub and the proper quantity of water added. Sulphate of copper solutions are poisonous; do not use the same tubs for other purposes. Breaking up the soil and exposing

the wireworms or deep trenching are useful. One of the most successful methods is to starve out the larvæ by keeping the ground fallow for a year, just cutting down and destroying the weeds. On ground allowed to be fallow for a year a good application of gas lime is very valuable. Where crops have to be grown use soot and guano. Traps of Carrots or Lettuce may be inserted in the soil. Examine them every day.

BONE-MEAL (*Sweet Pea*).—You should mix this with the soil, but be careful not to use too much, or you may do more harm than good. Although it is not so quick acting as guano, it is more so than bones, and will benefit your Peas. Scatter it on the soil and dig it in. You may also use it sparingly as a top-dressing later, when the plants are in full growth.

SWEET PEAS IN TUBS (*W. Foot*).—Yes; Sweet Peas can be grown very well indeed in tubs. The latter need not be 2 feet deep, however; 1 foot or 15 inches would be much more suitable. Make three holes in the sides, quite near the bottom (if there are no holes already), then put in drainage to the depth of 1½ inches, consisting of bits of broken flower-pots. Upon these place pieces of turf, to prevent the soil being washed into the drainage. Then fill the tub to within 2 inches of the top with soil, having some well-decayed manure intermixed. You can give a top-dressing of manure when the plants are in full growth. If all your tubs are 2 feet deep, then put some broken bricks in for drainage, then large pieces of turf. This will leave 12 inches, which fill with rich soil to within 2 inches of the tub rim. Any of the good sorts would do. Here is a selection: Captain of the Blues, Hon. Mrs. Kenyon, Lady Grizel Hamilton, King Edward VII., Scarlet Gem, Mrs. W. Wright, Miss Willmott, and Dorothy Eckford. Get a good Sweet Pea catalogue.

ANNUALS (*Curious*).—You can hardly expect the best results from growing them in the position you name. You should try and lighten the soil by mixing road scrapings, mortar rubble, and other similar material with it. If it is damp and heavy, annuals are not likely to thrive so well in it. *Nicotiana sylvestris* (the white-flowered Tobacco Plant) would probably grow as well as anything, and you might also try *Centaurea*, *Calendula*, *Lupinus Hartwegii*, *Iberis*, *Helianthus cucumerifolius*, *Bartonia aurea*, and *Godetia*.

ROSE LA FRANCE UNSATISFACTORY (*La France*).—Procure plants budded on the seedling Briar, as when on the Manetti stock they are liable to fail. As your soil is light, take out the soil 2½ feet deep, put a good layer of cow manure at the bottom—say, 3 inches or 4 inches thick—and add to the staple soil a barrowful or two of good clayey loam, which, perhaps, you can procure from some local gardener. Mix it well, adding some well-rotted manure as the digging proceeds. If you desire to plant this season, no time should be lost.

BOOKS.

The Sportsman's Year-Book.*—A handy guide for the sportsman. The information covers the whole world of sport, from football to motoring, and the biographies are interesting. Many portraits are given of leaders in their respective games. It is well printed and bound.

Hints on Collecting and Preserving Plants.†—This little book will be found very useful by those who collect specimens of wild or cultivated plants and preserve

* "The Sportsman's Year-Book." Edited by Mr. A. Wallis Myers. Published by George Newnes, Limited, Southampton Street, Strand. Price 3s. 6d.

† "Hints on Collecting and Preserving Plants." By Stanley Guédon. West, Newman, and Co., 54, Hatton Garden. Price 1s.

them. This is a practice much to be recommended; the formation of a herbarium helps greatly to a knowledge of plants. Mr. Stanley Guédon is the author of this booklet, and has treated the subject lucidly and exhaustively. Anyone wishing to form a herbarium could not fail to gain a good deal of useful information from his remarks.

Fruticetum Vilmorinianum.—A volume of considerable importance has recently been published, under the title of "Fruticetum Vilmorinianum—Catalogus primarius," by M. Maurice de Vilmorin. It is the first catalogue of the shrubs growing in 1904 in the collection of M. de Vilmorin at his Les Barres estate near Nogent-sur-Vernisson (Loiret), France. This collection is not, strictly speaking, an arboretum, for that name is properly confined to a collection of trees, yet the Les Barres property is a veritable school especially rich in Conifera; it has become the property of the State, and forms an auxiliary to our schools of forestry. The author, as the word "Fruticetum" (from frutex, a shrub) indicates, has applied himself chiefly to shrubs. It is known that M. Alphonse Lavallée had at his place at Segrez (Seine-et-Oise) large collections, of which he published a list in 1877. After his death these collections were not preserved, but M. Maurice Vilmorin, who had already collected a number of interesting shrubs at Les Barres, obtained permission from Mme. Lavallée to take any he desired from Segrez. He thus increased the number of species grown on his property, and formed the nucleus of a large and systematic collection on land especially prepared for the purpose. It is now ten years since these plants were thus established, and they form the collection, the catalogue of which has just been published. The utility of such a work is incontestable. "Nomina si desint, perit cognitio rerum," says Linnæus. It is important, therefore, to fix the names which ought to be preserved by a nomenclature carefully and critically revised, and the authors' names should be added. Thus the errors which abound in many catalogues would be avoided, and the cultivator of shrubs would be certain of the exact names of those he plants. Such a work is no light undertaking. It demands an extensive knowledge of plants, patient and persevering study, a vast correspondence with specialists, the knowledge of several languages, and of the use of libraries. This delicate task M. de Vilmorin, with the assistance of M. D. Bois (a botanist well versed in the science of plants and an assistant at the Museum) has undertaken. It is to the valuable help of the latter that the catalogue owes the description of a large number of new or rare plants, illustrated by drawings due to the talent of Mme. D. Bois and other artists. This considerably enhances the value of the work.

This important catalogue forms a large octavo volume of 284 pages, illustrated with many excellent drawings. It forms a complete enumeration of shrubs, whether deciduous or evergreen, which appear to be hardy in the climate of Paris and Orleans, together with some interesting types whose hardiness has not yet been estimated. It comprises more than 3,000 species, varieties, or hybrids, classified with the greatest care. Among the new or rare shrubs a very interesting series of American plants may be cited, especially *Crataegus*, and a large number springing from seeds gathered in China and on the frontiers of Thibet, such as *Davidia involuerata*, *Lonicera tibetica*, &c. We would mention among those specially described and illustrated the following, which up to the present time are imperfectly known: *Clematis meyeniana heterophylla*, *Euptelea Francheti*, *Decaisnea Fargesii*, *Berberis sanguinea*, *B. dictyophylla*, *Ampelopsis cantoniensis*, *Prunus tomentosa*, *P. canescens*, *Sorbaria assurgens*, *Rosa soulieana*, *Cornus foliolosa*, *Cotoneaster angustifolia*, *C. adpressa*, *C. bullata*, *C. Francheti*, *Philadelphus Magdalenæ*, *Ribes Warscewiczii*, *Lonicera deflexicalyx*, *Osmanthus Delavayi*, *Corylus tibetica*, &c.

In order to complete the service which he has thus rendered to botanists and horticulturists, who are careful of the exactness of the terminology of plants, M. de Vilmorin has formed a resolution which will be appreciated by all, namely, to put at the disposal of those who desire to increase their collections or to make exchanges a good number of the species which he possesses. He is, therefore, prepared to send, when requested, shoots fit for grafting or striking, seeds, or young plants raised from seed. No charge is made except for packing and carriage, no commercial value being attributed to the plants. By means of this generosity, for which one cannot be too grateful to M. de Vilmorin, he will be able to effect the distribution of those species which he has been the first, or one of the first, to introduce into Europe. His connexion with the explorers of the Far East, such as Abbé Armand David and Abbé Delavay, with the missionaries Farges, Soulié, and others, has enabled him materially to increase the importations of plants from those distant regions, to the great advantage of our gardens. This work will be continued, and we hope that the urgent appeal the author makes to those interested in the matter will meet with a liberal response.

ED. ANDRÉ, in *La Revue Horticole*.

CATALOGUES RECEIVED.

New Chrysanthemums, Seeds, and Plants.—H. J. Jones, Ryecroft Nursery, Hither Green, Lewisham, S.E.
Rare Seeds.—D. M. Andrews, Boulder, Colorado, U.S.A.
Begonias, Caladiums, and Gloxinias.—Messrs. John Peed and Sons, West Norwood, S.E.
Rare Flowers, Seeds, Plants, &c.—Theodosia B. Shepherd Company, Ventura-by-the-Sea, California.
Tree Carnations.—H. and J. Elliott, Courtbushes Nurseries, Hurstpierpoint, Sussex.
Begonias and Hardy Perennials.—Thomas S. Ware (1902), Limited, Feltham, Middlesex.
Bulbs and Tubers for Spring Planting.—Barr and Sons, King Street, Covent Garden, W.C.
New Hybrid Gladioli.—H. H. Groff, Simcoe, Ontario, Canada.
Cannas, &c.—J. B. A. Deleuil et fils, Hyères (Var), France.
Seeds.—Wilhelm Pfitzer, Stuttgart.
Select Plants and Seeds.—R. H. Bath, Limited, The Floral Farms, Wisbech.
Garden Flowers.—William Watson and Sons, Clontarf Nurseries, Dublin.
Vegetable and Flower Seeds.—T. Kershaw, Bleak House Nurseries, Cross Roads, Keighley, Yorks; Richard Dean, 42, Ranelagh Road, Ealing.

TRADE NOTES.

NATIVE GUANO.

THE attention of agriculturists and gardeners is requested to this manure extracted from town sewage, and containing the well-known valuable properties of cesspool matter. The reports received from practical farmers and horticulturists entitle it to rank as one of the best and cheapest manures. Its effects, both immediate and lasting, show it to be the natural manure for the soil, returning what has been taken from it. This, together with its moderate price and fertilising qualities, has caused it to be extensively used throughout the country. It is of great value for root and grain crops, grass, Hops, Vines, Pines, fruit trees, vegetables, and all floral and kitchen garden produce. The guano is dry, inodorous, and its fertilising properties are great. It contains nitrogenous matter as well as phosphates, alkaline salts, saponaceous compounds, &c., and has a combination of manurial elements in such proportions as suits the crops, and produces satisfactory results, fully bearing out the opinions of Baron Liebig.

SUTTON'S FARMERS' YEAR-BOOK.

FROM the opening page of the issue for 1905 it is satisfactory to learn that last year's harvest proved to be particularly favourable, resulting in seed of high quality; and that prices of the finest pedigree stocks of seeds are within the reach of every farmer. The value of pedigree roots has been confirmed by remarkable experiments made in recent years. Reports issued by the Cambridge University Department of Agriculture, the University College of North Wales, the Department of Agriculture for Ireland, and the Edinburgh and East of Scotland Agricultural College prove that the finest types of roots not only produce the heaviest weights per acre, but yield the largest proportion of dry matter under comparative analysis. Messrs. Sutton are able to support these conclusions by numerous extracts from the reports of customers written from all parts of the United Kingdom. As usual, the year-book is illustrated with numerous photographs of farm scenes of great beauty and interest. A copy of the work can be obtained by applying to the authors, Messrs. and Sons, Reading.

OHLENDORFF'S GUANO.

WE are reminded by looking over a set of this season's circulars issued by the Anglo-Continental (late Ohlendorff) Guano Works, of an apt remark of the late Dr. Voelcker to the effect that it was no more possible to imitate guano than milk, both being natural productions. It is from this cause that the nourishment supplied by guano to plants is found superior to that of artificial compounds. Farmers will be glad to note that the importations of this old favourite manure continue to be on a large and increasing scale, the shipments having risen from about 52,000 tons in 1901 to 79,000 tons in 1903, and that the prices will remain about the same as last season. In addition to guano, the company offer all sorts of other fertilisers, and have recently added to their works at Silvertown, on the Thames, a bone factory with all the latest appliances for preparing pure vitrified bones, bone manures, bone-meal, &c. We recommend our readers to apply to the company, 15, Leadenhall Street, London, or to their local dealers for a set of their publications, including the blotter-diary.

A NEW LAWN BROOM.

THE lawn broom, of which we give an illustration, is designed to sweep large surfaces quickly and economically. It is specially suitable for use on golf links, tennis courts, pleasure grounds, carriage drives, lawns, &c. It is a great



improvement on the old-fashioned garden broom. It lasts longer and continues to wear soft until the end. Full particulars and prices may be had from Mr. G. Dunford, 4, Radnor Gardens, Twickenham, Middlesex.

WARE'S BEGONIAS.

THE list of Begonias issued by Messrs. T. S. Ware, Limited, Feltham, Middlesex, contains descriptions of some excellent new sorts, as well as a general collection of old ones. An illustration of the variety Mary Pope forms the frontispiece; this is a large, pure white Camellia-flowered sort. The double-page illustration of Ware's field of tuberous Begonias in flower at Bexley Heath shows a wonderful sight, and is plain evidence of the extraordinary freedom with which these plants flower. After seeing this picture no one could doubt the great garden value of the tuberous Begonia.

THE PATTISSON LAWN BOOTS.

THE Pattisson Patent Boots meet the long-felt need of a great improvement on the sliphod boots that have hitherto been used for grass work. The latter are universally condemned as clumsy and costly, and injurious to the horse wearing them. To keep them on they must be so tightly strapped round the fetlock that the animal is chafed and worried, and works in discomfort; while they are so constructed that the poisonous sweat of the frog cannot escape, this frequently resulting in permanent injury to the hoof. They are troublesome to put on and take off, are continually needing repairs, and are generally voted an expensive nuisance. The Pattisson boot, on the other hand, is very simple and strong in construction, most effective in use, and extremely durable in wear, with

the additional advantage that it can be most satisfactorily refitted when the soles are worn out. It is, therefore, without doubt, the most economical boot that can be used. The large annual increase in the demand during the six years it has been on the market, the regular "repeat" orders from users, and the extraordinary number of unsolicited testimonials received, prove the claims that are made for it. It may be had from Mr. H. Pattisson, 1, Farm Avenue, Streatham, S.W.

A TRIANGULAR ROSE PILLAR.

THE Suffield Triangular Rose Pillar is constructed upon distinctly novel lines, and will, we think, meet a want felt in most gardens in providing a more natural and graceful method of training Roses than hitherto in use, as, owing to the trainers being vertical, the branches and shoots are not twisted and contorted as when trained on a diamond or square mesh, and the danger of young shoots being snapped off is entirely removed. It is very strongly yet lightly made, packs flat for transit, and is most readily fixed by any inexperienced person. It is particularly suited for Ramblers, but can, of course, be used for any climbing variety. Full particulars of this may be had from Messrs. Barnard, Bishop, and Barnards, Limited, Norfolk Iron Works, Norwich. This firm also have other novelties for use in the Rose garden, and among them we might mention the Improved Rose Arch. This is made on the same principle as the Pillar, and probably many rosarians will consider it an improvement on the ordinary Rose arch; besides, it provides relief from the prevalent diagonal form of mesh.

ORCHIDS.

A PERUSAL of the catalogue of Orchids issued by Messrs. Charlesworth and Co., Heaton, Bradford, will well repay those interested in these quaint plants, the beauty of whose flowers is unrivalled. It is excellently printed, the different Orchids are arranged alphabetically, so that reference is very simple, and the names are printed in bold type. Altogether it is an admirable book of reference for Orchid growers and Orchid lovers. There is a frontispiece showing a houseful of autumn-flowering Lælio-Cattleyas.

MR. F. W. ASHTON begs to give notice that on March 4, 1905, he terminated his connexion with Messrs. Stanley and Co. (late Stanley, Ashton and Co.), and that on March 6 he entered the service of Messrs. Hugh Low and Co., Bush Hill Park, Enfield, as Orchid representative and traveller.

SOCIETIES.

WOOLTON GARDENERS' SOCIETY.

A MEETING of the above was held at the Mechanics Institute on the 2nd inst., Mr. T. Carling presiding. The subject for discussion was "The British Gardeners' Association," introduced by Mr. John Stoney, who spoke in favour of its aims, especially to the younger men. Many of the members present spoke in favour of the scheme, more especially that of registration. No vote was taken on the subject, but general interest was manifested, especially in the proposed meeting in Liverpool.

LONDON DAHLIA UNION.

THE annual exhibition of Dahlias by the union will take place as heretofore in the Prince's Hall of the Earl's Court Exhibition on Tuesday and Wednesday, September 19 and 20 next. Mr. John Green (Hobbies and Co.), Dereham, is the chairman of the union for the present year, and Mr. Richard Dean, Ealing, the secretary, from whom schedules of prizes can be obtained.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE ordinary monthly meeting of the Scottish Horticultural Association was held at 5, St. Andrew Square, Edinburgh, on the evening of the 7th inst. There was a large attendance, presided over by Mr. J. W. McHattie, president of the association. There were a number of interesting exhibits, several of which attracted a good deal of attention, particularly the Tillandsia from Hay Lodge, Trinity Road, Edinburgh. The lecture of the evening was by Mr. Alexander Mackenzie, Warriston Nurseries, the subject being "The Garden in Literature." It was treated in a delightful way by Mr. Mackenzie, the lecture being full of interesting references to the praise of gardens as shown in the pages of the great poets and prose writers. The lecture was one of the most interesting of its kind yet delivered at the meetings of the association, and Mr. Mackenzie was warmly thanked for it.

BLAIRGOWRIE HORTICULTURAL LECTURES.

ON the evening of the 1st inst. a highly successful series of horticultural lectures arranged by the Blairgowrie Horticultural Society, under the auspices of the School Board, was brought to a close by a lecture on "Vegetables," by Mr. John Laing, Craighall Gardens. There was a crowded audience in the Blair Public School, where the lecture was given. The lecture dealt fully with the various vegetables generally grown and how best to cultivate them. Mr. Laing explained in a most practical manner the practice he followed in order to secure the best crops, and his lucid treatment of the subject was much appreciated by those present.

ROYAL HORTICULTURAL SOCIETY.

THERE was a bright display of plants and flowers in the Horticultural Hall, Vincent Square, on Tuesday last, alpinæ, forced shrubs, and Orchids being largely shown.

ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, R. Brooman White, de B. Crawshaw, W. Boxall, W. H. Young, W. H. White, A. A. McBean, F. W. Ashton, G. F. Moore, H. Ballantine, Jeremiah Colman, R. G. Thwaites, T. W. Bmd, Harry J. Veitch, W. A. Binley, J. Wilson Potter, H. A. Tracy, J. Charlesworth, and H. T. Pitt.

Mr. W. P. Bound, gardener to Jeremiah Colman, Esq., Gattin Park, Reigate, showed a bright group of Orchids in variety. *Platyclinis glumacea*, with its long slender racemes of fragrant flowers, scented the air for yards around. *Coelogyne cristata lemoniana* was very beautiful, and Cattleyas, *Odontoglossums*, *Lælias*, *Epidendrums*, and others helped to make a charming display. Among the choicer Orchids were *Cattleya intermedia alba*, *L. C. warnhamensis*, *L. flava*, *Phalaenopsis grandiflora*, *Odontoglossum triumphans*, and *Cymbidium eburneo-louianum*. Silver Flora medal.

The feature of the Orchid group from Messrs. Charlesworth and Co., Heaton, Bradford, York, consisted of some very fine plants of the hybrid *Phaius Norman*. The flowers, which vary considerably in colour, have rosy buff sepals and petals, and the lip is marked with crimson, rose, and yellow. *Lælio-Cattleya warnhamensis* Hyatia, orange-red and crimson; *L. C. Myra* and *L. C. Myra Etoile d'Or*, *Cattleya Trianae alba*, *L. C. welliana albens*, *Brasso-Cattleya Trianae-digbyana*, *Cattleya Empress Frederick superba*, *L. C. Doris* (a lovely apricot-coloured flower—*L. harpophylla* × *C. Trianae*) were some of the most striking plants in this fine collection. Silver Flora medal.

The group of Orchids from Mr. Cypher, Cheltenham, consisted largely of *Dendrobiums* in many good sorts; among these was *D. brymerianum* (rich yellow, with fringed lip), *D. nobile* Heathii, *D. n. Fisherii*, *D. Apollo* album, *D. A. grandiorum*, *D. wardenianum* album, and *D. fimbriatum oculatum*. *Miltunia beuana* in some rich colours, *Brasso-Cattleya Mendelii-digbyana*, *Cypripediums*, *Cymbidiums*, *Bletia Shepherdi*, *Oncidium concolor*, and others were also conspicuous. Silver Flora medal.

Messrs. Sander and Sons, St. Albans, exhibited a small group of interesting Orchids, which included *Cymbidium Lowii-eburneum*, *Zygopetalum gothianum*, *Z. orphanum*, *Odontoglossum stellatum*, several *Cattleyas* and *Cypripediums*, the latter including *C. gratiolum*, *C. Boadicea*, *C. Tonso-mastersianum*, *C. harrisianum* albens, *C. Helen II.*, and others. Silver Banksian medal.

Sixteen plants of *Dendrobium blackianum* (a hybrid between *D. Wiganie* and *D. findlayianum*), all from the same seed-pod, and each one different, were exhibited by Mr. R. G. Thwaites, Streatham, to show the wide range of variation.

Alderman William Bolton, Mill Bank, Widderspool, Warrington (gardener, Mr. W. H. Cain), exhibited two forms of *Odontoglossum Adriane* and *O. harriso-crispum*.

M. Ch. Vuylsteke, Loochristi, Ghent, exhibited some very fine hybrid *Odontoglossums*. One plant, a hybrid between *O. crispum angustum* and *O. Pescatorei*, carried no less than forty-three blooms. A cultural commendation was given to this plant. Two others which obtained awards of merit are described under new Orchids. Vote of thanks.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, exhibited a large plant of *Oncidium Lowii*, a natural hybrid supposed to be between *cavendishianum* and *carthagenense*, bearing a splendid raceme of its yellow-brown spotted flowers. A vote of thanks was given to the Earl of Tankerville for a group of Orchids. Several other Orchids were shown which obtained no recognition.

NEW ORCHIDS.

Odontoglossum lawrenceanum.—This is a handsome flower, the result of a cross between *O. triumphans* and *O. crispum-harryanum*. The sepals and petals have a ground colour of rich yellow, but this is visible only at the ends and in streaks between heavy blotches of chocolate-red. The lip is white at the base and lilac-purple above. From M. Ch. Vuylsteke, Loochristi, Ghent. Award of merit.

Odontoglossum amabile.—*O. crispum* and *O. crispum-harryanum* were the parents of this new *Odontoglossum*. The sepals are blotched with pale red upon a cream ground; the petals are blotched and heavily streaked with red and pale purple upon a white ground. The lip is large and marked with the same colours except at the base, which is pure white. From Messrs. Charlesworth and Co., Heaton, Bradford, York.

Dendrobium Che-singtonense.—This flower is of a uniform pale buff yellow throughout sepals and petals, and the lip has a red-brown centre, with yellow margin. The parents were *D. aureum* and *D. Wiganie*. From R. G. Thwaites, Esq., Streatham (gardener, Mr. J. M. Black).

Cypripedium Charles Rickman var. magnificum.—A flower of rich deep crimson colouring throughout sepals and petals; the pouch is very dark crimson. It is the result of intercrossing *C. barbatum nigrum* and *C. bellatulum*. Shown by Captain Holford, C.I.E., Westonbirt, Tetbury, Gloucester (Orchid grower, Mr. Alexander).

Dendrobium wardenianum candidum.—This is a large and distinct form of *D. wardenianum*. The sepals and petals are pure white, the lip is yellow, with two large red-brown blotches in the throat, and with a white margin. From J. N. Mappin, Esq., Headley Park, Epsom (gardener, Mr. T. Beeston).

Cypripedium haywoodianum.—*Cypripedium T. B. Haywood* and *C. bellatulum* are the parents of this new flower, which has broad dorsal sepal and petals. It is pale crimson,

marked with lines and dots of deeper crimson; there is some green in the dorsal sepal. From Mrs. Haywood, Woodhatch Lodge, Reigate (gardener, Mr. Salter). Award of merit.

Dendrobium Elwesii.—A hybrid between *D. Hildebrandtii* and *D. aureum*. The petals and sepals are creamy white, the lip is citron yellow, fading to cream colour at the base and margin, marked with crimson lines in the throat. From H. J. Elwes, Esq., Colesbourne, Gloucester (gardener, Mr. Walters).

Lycaste Sinneri var. atrosanguineum.—A large and particularly handsome form of this Orchid. The sepals are tinged with rose, especially towards the base; the petals, which overhang the lip, are crimson-rose, and the lip is deep rich crimson. From Captain Holford, C.I.E., Westonbirt, Tetbury (Orchid grower, Mr. Alexander).

Brasso-Cattleya Trianae digbyana Heston var.—A large and very handsome flower, rich rose-pink throughout the sepals, petals, and the fringed lip; the throat is light green, a colour that associates most pleasingly with the remainder of the flower. From Messrs. Charlesworth and Co., Heaton, Bradford. Award of merit.

Awards of merit were also given to *Dendrobium melanodiscus var. giganteum*, from Mrs. Haywood; and to *Brasso-Cattleya Schröders Tankerville*, from the Earl of Tankerville.

FRUIT AND VEGETABLE COMMITTEE.

Mr. A. H. Pearson (chairman), Messrs. Joseph Cheal, T. W. Bates, George Woodward, S. Mortimer, Alex. Dean, H. Parr, George Kelf, William Pope, P. C. M. Veitch, John Lyne, F. Q. Lane, G. Reynolds, George Wythes, Elwin Beckett, G. Norman, H. Markham, and H. Somers Rivers.

The Apples from Messrs. Cannell and Sons, Swanley, Kent, were an excellent lot; no less than 122 baskets and dishes in as many varieties were shown. Among the freshest of the dishes were Northern Greening, Rohenzollern, Winter Peach, Welford Park Nonesuch, Flower of Kent, Claygate Pearmain, Winter Queening, Bijou, Yorkshire Greening, and others. Splendid fruits of Norfolk Beauty, Bramley's Seedling, Blenheim Orange, Wealthy, Gasconne's Scarlet, Emperor Alexander, Bismarck, Lord Derby, and others were included in this exhibit. The fruits were remarkable for their rich colouring. Silver Knightian medal.

A vote of thanks was given to Mr. J. Crook, Forde Abbey Gardens, Chard, for dishes of Apples of the varieties Lord Burghley, Ribston Pippin, Sturmer Pippin, King of Tompkins's County, and Pear Bellissime d'Hiver. Several seedling Apples were shown, but no award was made.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), the Rev. F. Page Roberts, Messrs. C. T. Drury, John Green, E. Wilson Ker, G. Reuthe, R. Hooper Pearson, C. J. Salter, J. Jennings, Charles Bick, Charles Dixon, Charles Jefferies, Charles E. Pearson, Charles E. Shea, Edward Mawley, W. P. Thomson, E. H. Jenkins, William Cuthbertson, J. W. Burr, George Paul, H. J. Cutbush, George Nicholson, C. R. Fielder, R. C. Notcutt, and James Walker.

A very pleasing exhibit of *Primula kewensis*, *Rhododendron veitchianum*, *Camellia reticulata*, with many fine plants of *Imantophyllum* were shown by Messrs. Veitch and Sons, Limited, Chelsea. The *Primula* represented by a group of several dozens was profusely flowered. In this group also we noted *Senecio articulatus* from British Central Africa. The yellow starry flower-heads are most freely produced on forked branches and stems. Silver Banksian medal.

Messrs. Cutbush and Sons, Highgate, filled a table with an exhibit of choice early flowers and flowering shrubs in the background. Everything in the group was arranged with good effect. We take a few of the more prominent things as *Anemone Pulsatilla*, *A. ceruæa*, with chocolate-coloured flowers; *A. burseriana*, pure white, probably a representative of *A. alpina* from a new source; *Shortia galacifolia*, *Saxifraga Elizabethæ*, single and double blue Hepaticas, *Haerberia rhodopensis*, *Soldanella alpina*, *Primula marginata*, and others. Silver-gilt Flora medal.

Messrs. J. Laing and Sons, Forest Hill, staged a good group of *Clivias* and *Begonias* of the *Sempeck-reus* group with others, as *President Carnot*, *B. schiffiana* (white), and others.

A rockwork arrangement by Messrs. Pulham and Son, Oxford Street, was arranged with Hepaticas, Rock Roses, *Primulas*, hardy Heaths, and other plants.

The Misses Hopkins, Mere, Kentford, set up a pretty exhibit of *Primulas*, *D. g. tooth* Violets, *Primula elatior cærulea*, *D. usies*, with choice forms of hardy Ferns, &c.

Starry *Cinerarias* from Messrs. Cannell and Sons, Swanley, in great variety of colour, were most interesting, and these, in company with zonal *Pelargoniums*, filled one long table. It is not possible to describe the dazzling array of colour in these latter, they are most brilliant. Silver Flora medal.

A charming group of Clove-scented Wallflower-leaved Stock came from Mr. S. Mortimer, Farnham. This fine pure white Stock is practically a perpetual bloomer, and a perennial; obviously it is a plant for all to grow who delight in choice fragrant flowers. The plant is well suited to pot cultivation. Silver Banksian medal.

A very interesting lot of alpinæ was staged by Mr. G. Reuthe, Keston, Kent. The group included a large number of the early *Saxifragas*, as *S. oppositifolia* in variety, *S. Roehdiana* (a fine pure white), *S. Boydii*, *S. B. alba*, and many more. Hepaticas, *Crocuses*, *Drabas*, and blue and white Squills, were among other beautiful and pretty plants.

Flowers of *Magnolia Campbellii*, with rich rosy pink blossoms, were shown by Lord Ilchester, Abbotsbury Gardens, Dorchester. They were greatly admired. Silver Flora medal.

Violets Princess of Wales from Mr. H. Langston, Herefordshire, were good, and some interesting cut specimens of *Sarracenia* were from Mr. A. J. Bruce, West Didsbury.

A beautiful lot of alpinæ in pots and pans came from Messrs. George Jackson and Sons, Woking. Hepaticas and *Shortia galacifolia*, the latter beautifully flowered, were exceptionally good. *Iris Bucharia*, yellow and white flowers, with *Anemone Pulsatilla*, were also in good condition.

Fritillaria discolor was shown in flower by Miss Willmott, Warley, Essex. It is a most interesting plant, with greenish purple bell-shaped flowers and yellow internally.

The R uses from Mr. G. Mount were rich in colour and handsome. Some of the best were Captain Hayward, Mrs. R. G. Sharman Crawford, Liberty (very fine), Mrs. Grant, Ulrich Brunner, Catherine Mermet, and La France. Cut on bold and long stems, with perfect foliage, they attracted the attention of all. Silver Flora medal.

A large lot of Lenten R uses in great variety came from the Duchess of Bedford, Rickmansworth (gardener, Mr. Dickson). Many distinct and beautiful kinds, especially in the spotted section, were shown, but, as the varieties were unnamed, we cannot refer to them in detail.

Messrs. J. Ambrose and Son, Cheshunt, staged *Cinerarias*, *Mignonette*, *Roses* in the cut state, *Daffodils*, and other things of a useful character.

Tufa and other rock suitable for ornamental work in the conservatory was exhibited by Mr. R. Anker, Napier Road, Kensington.

Alpinæ and allied things were sent by Messrs. Ware and Co., Feltham. *Primroses* in plenty, a fine display of *Saxifraga burseriana* and *S. sancta*, *Ramondia pyrenaica*, *Sarracenia flava* in flower, *Arabis aubrietoides*, *Emphalodes verna*, double crimson *Primrose*, *Lithospermum rosmarinifolium* (a charming bit of blue), Hepaticas, double yellow wallflower, with a collection of *Daffodils* in pots, made a most interesting display. Bronze Flora medal.

Messrs. Barr and Sons, Covent Garden, contributed in a group of early spring flowers, as *Scillas*, Hepaticas, hardy Heaths, *Saxifragas*, *Iris reticulata*, *Sisyrinchium grandiflorum* (satin-purple flowers), *Chionodoxa*, *Daffodils* in variety, *Iris stylosa*, and such things.

Rose Philadelphia Rambler is a rosy crimson variety of the *Crimson Rambler*, of superior form, and a most abundant bloomer. The foliage is perfectly clean, and of a hard nature likely to resist mildew. The small group of this novelty was from Messrs. H. J. Hobbes, Limited.

Some well-grown *Cyclamen persicum* in variety came from Mr. A. B. Wadds, Worth, Sussex, the plants being freely flowered. Bronze Banksian medal.

Hardy spring flowers, as *Crocuses* and *Irises*, were freely shown by Messrs. Wallace and Co., Colchester. *Crocus susianus*, rich golden, was very charming. *Anemone blanda* and *A. Pulsatilla* were also notable.

Mr. B. S. Williams, Holloway, had a small exhibit of hardy things, in which *Muscari botryoides album* was in good condition.

The group of *Platyceriums* and other things from Messrs. J. Hill and Sons, Edmonton, was a most picturesque and attractive one, all the leading kinds being staged in groups. *P. Veitchii*, *P. Hillii*, *P. alcorni majus*, *P. grande*, and others showed to great advantage. A fine lot of *Polypodium aureum* were in the background. Silver-gilt Flora medal.

Mr. H. B. May, Edmonton, staged a mixed group of plants, in which *Gardenia florida*, *Bronias*, and a choice lot of Ferns were seen. Of the latter, *Davallia mooreana*, *Nephrolepis grandiceps*, and many beautiful *Gymnogrammas* were prominent. Silver Flora medal.

Mr. L. R. Russell, Richmond, staged on the floor a fine group of forced shrubs, the *Gnelder Rose*, with *Lilacs*, *Prunuses* and *Pyrus*, flowering Currants, and others being prominent. Silver Banksian medal.

Messrs. Cutbush and Sons, Highgate, staged Tree Carnations *Enchantress*, Mrs. Thomas Lawson, and the *Malmaison Carnation Mercia*, a fine scarlet kind.

Messrs. Cutbush and Sons also staged a handsome group, in which *Azaleas*, *Pyrus*, *Laburnums*, *Prunuses*, and other plants were finely disposed. The firm also showed *Boronia meastigma*, *Erica gracilis vernalis*, and *Boronia heterophylla* in fine condition.

A magnificent lot of *Camellias* in pots came from Messrs. William Paul and Son, Waltham Cross. The finely grown plants were well flowered throughout, and such as *Duchess of Teck*, pink; *alba plena*, *mathotiana*, crimson; *Mme. Cachet*, pink and white; *Mercury*, semi-double, crimson, were all excellent. Boxes of cut flowers were also freely displayed, and were most attractive. Silver-gilt Banksian medal.

A small exhibit of alpinæ was shown by Mr. J. R. Box, Croydon.

Messrs. Sutton and Sons, Reading, filled a large table with the giant Italian Hyacinths. The plants were grown in 6-inch pots, several bulbs in each, and were very pretty in the mass; the flowers were pleasantly fragrant. White, pink, and blue were the chief colours shown. A long table was filled with the plants which made a conspicuous feature. With their light and elegant spikes they are especially suited to general decoration.

NEW PLANTS.

Helionopsis breviscarpa.—A pretty low-growing plant from Japan, with small foliage and spikes of almost squill-like flowers. From Messrs. Barr and Son, Covent Garden. Award of merit.

Adonis amurensis fl.-pl.—A handsome double form of this good early plant. The yellow blossoms are very pretty, and rendered doubly attractive by a centre of deep pea green. A valuable plant for rockery or border. From Messrs. Cutbush and Sons, Highgate. Award of merit.

Pulmonaria arvensis alba.—The type of this is a well-known early blue-flowering plant, this form differing in its clustered heads of white flowers. Quite a choice plant for the rock garden, growing not more than 6 inches high. From Messrs. Cutbush and Sons, Highgate. Award of merit.

Erica hybrida Veitchii.—A valuable and interesting hardy Heath, the bushes, 2 feet high, being loaded with white bell-shaped flowers. From Messrs. R. Veitch and Sons, Exeter. Award of merit.

Helleborus orientalis Stephen Olbrech.—A large and handsome-flowered variety, purplish plum in colour, and in effect a really fine variety of *H. colchicus*. From Sir Trevor Lawrence, Dorking (gardener, Mr. Bain). Award of merit.

Cantua dependens.—A fine truss of the long, richly-coloured flowers was shown by H. J. Elwes, Esq., Colchester, Gloucester. Award of merit.

Carnation General Kuroki.—The finest Tree Carnation with scarlet-crimson flowers we have seen. A most handsome and shapely flower, without the smallest inclination to bursting, with long stems. From Messrs. Cutbush and Sons, Highgate. Award of merit.

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE annual meeting was held on Monday evening last at the Caledonian Hotel, Strand. Mr. Walter P. Wright presided over an attendance of about twenty-five. The secretary then read the minutes of the last general meeting and the annual report, from which we make the following extracts:

The committee has the very great pleasure of presenting to the annual meeting a report that is eminently satisfactory. In many respects the year 1904 has been a record one, no less than ninety-five candidates having been admitted to membership, this number showing an increase of twelve over the previous highest number elected in any one year. Losses have, however, to be deducted, and these include five deceased and twenty-three lapsed members, the total membership at the end of the year being 1,076, made up of 609 paying on the higher scale, and 467 paying on the lower scale. Sick members to the number of eighty-six have benefited under the sick fund, the total paid out during the year being £327 6s., or an average of £3 16s. per sick member. This sum has been met by a deduction of 7s. 5d. from the contributions of higher-scale members, and of 4s. 11d. from the lower-scale members. There are now six members receiving regular grants from the benevolent fund, and these amount in the aggregate to £99 6s. In addition several members in distress have been assisted to the total amount of £15 4s. 7d., and in these cases the help afforded has been most gratefully acknowledged. Contributions to the benevolent fund amounted to £130 4s. 5d.

From the convalescent fund £7 has been paid out to members recovering from illness, and the committee has reason to know that in some instances the help from this voluntary fund has practically proved to be the physical salvation of the members. Members should ever bear in mind the generosity of Mr. N. N. Sherwood in founding this fund, and so far as able make a point of themselves contributing something each year to it. The committee proposes henceforth to hold the committee and other meetings at the new Royal Horticultural Hall, where accommodation has been promised on particularly favourable terms. The committee is strongly of opinion that direct association with the premier horticultural society cannot fail to result in a wider interest being taken in the work of the United Horticultural Benefit and Provident Society.

The annual dinner held at the Holborn Restaurant on Wednesday, October 12, was again successful, and Mr. W. A. Bilney made a most genial and capable chairman. To the honorary members the committee tenders its heartiest thanks for their continued interest, and not less sincere and hearty are the thanks offered to the horticultural Press for services freely and frequently rendered to the society. On the recommendation of the rules sub-committee the committee has decided not to call a special general meeting to consider the proposed new rules until 1906. During 1905 the committee will have to meet the somewhat heavy expenses entailed by a complete audit of the society's books. In addition to this the quinquennial valuation under the Friendly Societies' Act has to be made. The sub-committee has met on numerous occasions, and its work, now almost finished, will be submitted to a competent legal authority (fortunately at no cost to the society) ere the proposed alterations are placed before each member.

In conclusion the committee would once again urge upon members the desirability of missionary work among gardeners, especially among young gardeners, on behalf of the society. The substantial increase of members in 1904, and the fine prospect already opened for 1905 should be an incentive to those who already appreciate the benefit of unity to further increase the strength of the society.

The chairman, in proposing the adoption of the report, said the society should have an increased membership. If gardeners realised the value of the society the membership would be greater. Various reasons were assigned for the lack of new members. Some suggested it should be canvassed and more largely advertised. These, however, would prove costly. He thought the society was good enough to advertise itself. He thought the rules were admirable; it was an excellent policy to write off a certain sum for depreciation of securities, as had been done. Mr. Wright referred to the large influx of members this year already. He suggested that the horticultural journals should be approached to do all they could for this society. The chairman also pointed out the superiority of the United

Horticultural Benefit Society over an ordinary friendly society. The management fund expenses he thought to be exceedingly low; the amount last year was £182 16s. 8d. The interest on the convalescent fund is considerably more than the amount disbursed by this fund. Mr. Wright thought that a society conducted on such good principles of management as this was bound to prosper. He suggested that one reason the society did not grow rapidly was because the British gardener is so absorbed in his work that it (the society) escapes his notice. Missionary work on behalf of the society ought to be carried on among gardeners without ceasing.

Mr. C. H. Curtis, in seconding the adoption of the report, referred to the postponement of the revision of the rules and other matters referred to in the report, mentioning in detail some of the more important alterations to be carried into effect. Mr. Bilney had kindly undertaken to look through the new and altered rules, and to give the society his opinion upon them.

Mr. Brown, Chertsey, thought progress was very slow. He suggested that a pamphlet should be circulated, showing the benefits of the fund, and also that the age for admittance should be lowered. He thought that a date should be fixed for a meeting to consider the revision of rules. It was stated by several members that leaflets about the society had been distributed. The report was then carried without dissent.

Mr. J. H. Dick proposed that 3,000 copies of the report be circulated. This was seconded and carried.

The election of new members of committee, and the usual votes of thanks brought the meeting to a close. In replying to the thanks accorded to him for presiding, and also for writing an article which had been the means of bringing more than thirty new members, Mr. Wright said he would be glad to give five guineas towards the expenses of publishing his notes in pamphlet form if the committee thought this desirable.

REDHILL AND DISTRICT GARDENERS' SOCIETY.

UNDER the auspices of the Redhill, Reigate, and District Gardeners' Association a special lecture was given in the King's Hall, Colman Institute, Redhill, recently, dealing with evolution in plant life, illustrated by the Orchid. The lecturer was Mr. H. J. Chapman, formerly Orchid grower to Mr. R. I. Measures of Streatham, and now head gardener to Mr. Norman C. Cookson, Oakwood, Wylam-on-Tyne, Northumberland. Mr. Jeremiah Colman, D.L., J.P., occupied the chair. Mr. Chapman, at the outset of his lecture, said he had not prepared a cut-and-dried paper, but he intended giving a brief explanation of the slides, and then they might realise that the Orchids were not what they were represented to be. Many considered them in the light of a plant only to be indulged in by those possessing a plentiful endowment of this world's goods. That was the greatest mistake imaginable. Many of the best species which fetch the greatest price are imported into this country, realising about 1s. 6d. each. There were about 150 slides altogether, and the peculiar characteristics of the Orchid were first displayed, photographs being shown of the interior and exterior of the flower. Specimens of seedlings were shown, and Mr. Chapman explained how in some instances the seedlings germinated within a few days, and in others it took months and even years. The hearty thanks of the meeting were voted to Mr. Chapman.

CARDIFF GARDENERS' ASSOCIATION.

THE usual fortnightly meeting was held at the Sandringham Hotel on Tuesday, the 7th inst., Mr. Tom Clarke presiding. Mr. R. Mayne, Park Place, Cardiff, delivered a practical and instructive lecture on "Pot Strawberries." The lecturer explained in detail the modes of propagation, the best varieties to select for the purpose, and the proper treatment to keep up successions. Mr. Collier opened the discussion, which was enthusiastically taken up by the majority of the members. The best thanks of the members were accorded Mr. Mayne for his popular lecture. Concluding the chairman announced that the nineteenth annual general meeting would take place on Tuesday next, the 21st inst.—J. JULIAN.

EAST ANGLIAN HORTICULTURAL CLUB.

THE March meeting was held at the Shirehall Hotel, Norwich, on the 8th inst. The president (Mr. J. Powley) was in the chair, and among those present we noticed Messrs. George Davison (Westwick), W. Chettleburgh (Worstead), C. W. Marr (Hobbies, Limited, Dereham), H. Batchelor (Sprouston), C. H. Fox (Old Catton), G. Moore and E. C. Ramus (Hethersett), and W. L. Wallis, the secretary. Mr. C. Matthews, gardener to L. E. Willett, Esq., Thorpe, was the only essayist in the competition upon "The Treatment of Flowering Trees and Shrubs," after the reading of which an animated discussion followed. Some of the principal speakers were Messrs. J. Clayton (Daniels Brothers, Limited), T. B. Field (Ashwellthorpe), H. B. Dobbie (Thorpe), and the president. The exhibition tables were well filled with pot plants, fruits, and vegetables, and some keen competitions were witnessed. Mr. E. J. Foulger was first for dessert Apples, stewing Pears, and a single plant of *Dielectrica*. Mr. F. Williams, gardener to Louis Tillet, Esq., M.P., was first for a bunch of cut flowers, and also had some good bulbs in pots. The latter, however, were beaten by Mr. W. Shoesmith, gardener to F. W. Harmer, Esq., Cringleford. Mr. C. H. Hines and Mr. C. H. Fox both took many prizes in the vegetable section. A cultural commendation was unanimously granted to Mr. A. F. Cooke, gardener to the Rev. Canon Ripley, Ipswich Road, for *Dendrobium nobile*, profusely covered with bloom. Hobbies, Limited, Dereham, sent up some nice blooms of *Carnation Mrs. T. W. Lawson* and some new Roses they are sending out this year. It was notified that

at the April meeting Mr. W. P. Wright, secretary of the National Potato Society, would come and speak about Potatoes.

DUNDEE HORTICULTURAL ASSOCIATION.

THE monthly meeting of the above association was held in the Technical Institute, Dundee, on the evening of the 7th inst., when there was a large attendance, which was presided over by Mr. William Grant. The subject of the evening's address, which was by Mr. Lawrence Melville, was "The Legal Aspect of Gardening." Mr. Melville, who is thoroughly well qualified to lecture upon the subject, dealt with it in a clear and concise way, market gardens in particular receiving prominence on account of their commercial importance. Mr. Melville considered that market gardeners had greater privileges than their landlords. The after-discussion was very spirited, but the general opinion expressed by the greater number of those who spoke was that the landlords had the balance of advantage over the tenants, particularly in the case of private gardens. Mr. Melville was heartily thanked for his valuable address.

LATE NOTES.

Valuable Orchids in dispute.—In THE GARDEN of the 11th ult. we gave particulars of a case before the Belgian Tribunal of Commerce that is of interest to English Orchid growers. An amateur of repute in England bought five small plants for about £1,200 of an alleged rare variety of *Odontoglossum crispum* from a firm in Brussels. The plants were not in flower at the time, but were bought on the strength of water-colour drawings said to be exact reproductions of the five plants in flower. However, these plants turned out to be inferior varieties, and for this reason the lawsuit was instituted. Judgment has now been given. This is to the effect that the sale of Orchids purchased when not in flower, according to coloured drawings, is void if the flowers produced are not similar to those represented by the drawings, as these formed the basis of the contract. It was also ruled that if there existed several plants of an Orchid sold as unique the sale would be void. It was decided that plaintiff had proved several other plants to exist of the particular variety under consideration (*Calos*), sold to him as unique, and that the flowers produced were not similar to those shown in the coloured drawings. At the same time, however, three experts were appointed to decide whether, as alleged by the defendants, these Orchids under other cultivation would have produced finer flowers than those grown by the plaintiff, and if such flowers would be similar to those shown in the coloured drawings. The report of the experts will not be available for some months.

The late Mr. T. M. Crook.—We regret to learn of the death of Mr. T. M. Crook, Stanley Grange, Hoghton, near Preston, who was well known in horticultural circles, but especially among Orchid connoisseurs. His collection of Orchids was one of the largest and best private collections in the country. Mr. Crook took no part in public affairs. His generosity was unbounded; he was a liberal supporter of horticultural, agricultural, and other societies. His death is mourned by a very wide circle of friends. He leaves a widow and two daughters, his only son having died on December 8, 1902.

When are Apples out of season?

I was surprised to see that Mr. Tracey considers that fine culinary Apple Lord Derby out of season at the present time. Having occasion to dispose of some surplus Apples early in the present month I forwarded them to a well-known salesman in Covent Garden. Of the six varieties forwarded Lord Derby made the top price—4s. per bushel. I find no difficulty in keeping this variety until the end of March or even later in an ordinary fruit room.—CHARLES PAGE, *Dropmore Gardens, Bucks.*

Royal Botanic Society of London.

The society has arranged to hold its second annual great horticultural exhibition on Wednesday, Thursday, and Friday, June 7, 8, and 9, instead of June 14, 15, and 16, as originally proposed. This is in addition to the usual monthly shows.

THE GARDEN

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MARCH 25, 1905.

ENGLISH NAMES FOR PLANTS.

THE question of English names for plants is one of perennial interest. But, practically it seems that the natural law of language, namely, that it will grow of itself but cannot be made, also embraces and governs the general adoption of plant names.

Nothing, for instance, could be better, as a word or as a name, than Ruskin's "Rock-foil," a good-looking, pleasant-sounding, and admirably descriptive word. It has been with us for more than a quarter of a century, but is not in general use. Perhaps it was that we had learnt to say "Saxifrage," and that "Saxifrage," by use, had already become English, so that the better word, coming a little too late is left neglected.

Many of the oldest flower-names are the Latin names anglicised—Rose, Lily, Peony, Lupin, Violet, Tulip, and Hyacinth. Now we never anglicise the botanical name. If the name is pretty and convenient we adopt it whole without alteration, as in the case of Ixia, Azalea, Andromeda, Iris, and so on. We have even adopted some that are without these good qualities, of which an example is *Rhododendron*. No name can be much more cumbersome, and yet we constantly find ourselves plodding patiently through all its four syllables.

As one correspondent says, *Crocus* is now good English, and therefore its plural becomes *Crocuses*. But if botanists were discussing the species of the genus *Crocus* they would speak of them collectively as *Croci*, because they are, quite correctly, using the Latin plural termination to the Latin name.

It is noticeable, however, that our English plural has an ugly look and an unlovely sound when it comes at the end of an adopted name ending in "us," so that in pretty, or even ordinary writing about flowers we are moved to some sort of evasion and incline to say *Crocus* flowers or *Crocus* blooms rather than *Crocuses*. In the same way we feel a little shy about *Ranunculuses*, *Gladioluses*, *Convolvuluses*, *Asparaguses*, and *Mimuluses*.

Some of the strangest freaks in the adoption or growth of plant-names have been those where we have accepted and commonly use the botanical generic name of one plant as

the popular name of another of quite another natural order; as "*Nasturtium*," now the English name of *Tropeolum*, but properly the botanical name of *Watercress*; and "*Syringa*," used as the popular name of *Philadelphus*, but really the botanical name of the *Lilac*.

By all means, when there is a plurality of popular names, let us choose and, if possible, use only the best, though we think that *Pansy* and *Heartsease* will both live. And in the case of new plants that have long, awkward, or difficult names, let anyone propose suitable English names; though whether or not they will be accepted and will grow into familiar English is a matter that the strange ways of the growth of language must be left to decide.

A WHITE GARDEN.

LONG, long ago, in a corner of beautiful England, a house was built, a garden planned and laid out, and the Yew hedges planted which now surround it and shelter it from the winter winds that sweep over it from the rolling downs above. The Dutch influence was then paramount, and the garden of which I speak is full of quaint corners, Yews clipped in fantastic shapes, mimic peacocks spreading their bushy tails from trim pedestals, and heraldic lions rampant guarding the entrance to the pleasure. Here is the old sundial, worn and time honoured, with the motto "I only mark the happy hours." Nothing is much changed, for this house and garden are still in the hands of the descendants of those who created them. Certain alterations were made, it is true, when the fatal craze for carpet bedding took possession of the gardening world of fifty years ago, but luckily the Dutch garden was left undisturbed, because around it hung the beloved memory of a woman who has long lain asleep in the little churchyard close at hand.

In the quaint old garden, with its clipped Box borders, Rose trellises, and white marble fountain eternally sending up its sparkling waters to the sunlight, was this dead woman's joy and solace for many years. We read in a journal, whose pages are blistered with tears, that in her comparatively short life were many hours of sorrow, borne with the faith, hope, and charity which seemed so much more inseparable from the heart of the womanhood of that day than it is now. At the age of twenty-five—and though the people were older then when the world was younger, she must have been in the zenith of her beauty, rendered on canvas by the

great painter of that day—this lady lost the sight of her beautiful eyes, those wonderful dark blue Irish eyes that gaze so lovingly at you from the shade of the white-plumed hat.

It is not stated how this happened, but we are told that from that hour she who had so passionately loved her flowers became even more devoted to her garden than before, and that she would spend hours on the seat in her Dutch garden listening to the music of the birds and the murmuring of the falling water from the fountain. Then an idea seemed to take possession of her, and she would have none but white flowers in this portion of her garden.

No longer seeing the bright and various colours of her favourites, she appeared to think it would comfort her to know that all her blossoms were alike colourless, and I have thought, too, that there may have been a feeling of dedication in her mind in connexion with the deep sorrow of her enforced condition of dependence—for she, like her flowers, also wore white always. The tall Madonna Lilies are there set in ever-increasing beauty against the background of green Yews, and surround the old marble seat where she spent so many hours. The Roses on the trellises that sub-divide and break the enclosure into alleys are all white, and it has been the sacred care of the present owners to renew them; so that many beautiful new varieties blossom there, mingling their branches with the *Clematis montana*, fine white varieties of the *Jackman*. In the spring sheets of *Snowdrops* whiten the turf and star the prim Box-edged squares of the flower-beds. White *Hepaticas*, undisturbed for half a century, and double *Primroses* follow, while white *Lilacs*, *Mock Orange* flower, and *Guelder Rose* make fragrant shelter for the nesting nightingale, whose song blends with the whispering water of the fountain. A long border, which breaks the formal monotony of the beds, is filled with a wonderful collection of white flowers; indeed, until I saw them I had forgotten how many of these beautiful plants there are, and this garden is ever being replenished with the newest flowers that are hardy enough to withstand the rigours of a somewhat high altitude.

Of the fair woman who unrepiningly led her simple life in this garden it may be told that when the husband of her youth was called away from her, and gave his life for England on the battlefield of *Vittoria*, she, broken-hearted, but still seeing with the eyes of her soul the needs of others, spent the few remaining years of visual darkness in doing good, and one summer's eve in her white garden she went out from among her Lilies to eternal light. Those who survived her, and their children's children, and as long

as one of the name remains, will cherish her white garden as a fitting and beautiful monument to her memory. The nightingales will sing as they sang to her nearly 100 years ago, the fountain will send up its thousand jewels to the sun, and the Roses and Lilies offer their incense to her unforgotten name.

I know of other white gardens, and I have felt that a small space might be sometimes devoted to flowers so beautiful. It is the only really artistic combination of one colour, and if properly handled very charming results can be obtained, a perfect succession of white flowers being more possible than those of brighter hues; but I recognise at the same time these special arrangements can only be carried out by those who have a garden adapted to such vagaries, by which I mean a garden, as are many old-fashioned ones, divided into separate sections or compartments, which can be used for some special display of flowers or shrubs, rockery, or water garden. The list of white flowers for each month of the floral year is almost inexhaustible, and many of them are very sweet. With these white flowers, too, can be employed beautiful foliage plants as a relief, while there are also a great variety of flowering shrubs, and any quantity of white Roses at our disposition.

A. DE LACY LACY.

PRIZES FOR GARDENERS.

AWARDS IN THE FEBRUARY COMPETITION.

THE EDITOR, who has had the assistance of experts, awards the prizes as follows: First (85 marks), Mr. Edward J. Dore, 11, Radstock Road, Reading; second (83 marks), Mr. Parker Robinson, Pool Farm, Adderley, Market Drayton, Salop; third (80 marks), Mr. L. Lavender, Manor House Gardens, Waltham St. Lawrence, Twyford, Berks; fourth (79 marks), Mr. Edward Pullin, under gardener, Gisburne, Princes' Park, Liverpool. Cheques for the several amounts have been sent to the above-mentioned prize-winners. The following, whose papers are next in order of merit, are considered worthy of honourable mention. The number of marks each competitor obtained is given in parentheses: A. J. Hartless, 5, Mortlake Terrace, Kew, Surrey (78); W. Ford, The Gardens, Hutton John, Penrith, Cumberland (76); A. Wilson, The Gardens, Benslow, Hitchin, Herts (75); J. E. Phillips, Trevor Hall, Llangollen (75); M. Millard, Wintney House Gardens, Winchfield (75); John Botley, gardener to the Rev. H. M. Wells, Scarlets Park, Twyford, Berks (75); A. M. Foster, Chesham Bois, Bucks (75); Robert Bellerby, The Gardens, Askham Bryan Hall, York (75); H. Gardner, Underley Gardens, Kirkby-Lonsdale, Westmoreland (74); F. Prior, The Gardens, Swanmore Park, Bishop's Waltham, Hants (73); A. E. Speer, Sandown Lodge Gardens, Esher, Surrey (72); Thomas Prickett, gardener to the Misses Ryder, Gledhow Hill, Leeds (71).

The Annual Flower Competition proved to be more popular than the previous one, as a larger number of replies to the questions were received. The answers, even in the same paper, were of widely different merit, and this accounts for the comparatively low number of marks gained, even by the prizewinners, out of a possible 108. We publish the first prize paper as promised, although it must not be taken as being good in all particulars. In some of the other papers there were better answers to Questions VI. and VII., although Mr. Dore gained the highest number of marks altogether. We might say that *Linum grandiflorum rubrum*, one of the most effective annuals for massing, should have been included

in the answer to Question IV., that Sweet Peas are missing from the answer to Question VI., and that it is obvious there are other ways of using climbing annuals than mentioned in Answer No. VII.

For the guidance of future competitors we might say it was evident that all the answers were not compiled from actual experience, as *Nicotiana glauca*, and *Nigella Miss Jekyll* were among the new flowers recommended. These, it is obvious, could not have been grown by those who included them. Many of the answers were vague; for instance, *Chrysanthemums*, *Asters*, and *Sunflowers* might refer to very different flowers. The actual species or variety should be given. Instead of giving the best uses of climbing annuals, as the question directed, the majority of competitors gave an elaborate list of the best sorts, instead of answering the question asked. The answers to this question (No. VII.) were, generally speaking, very poor. Almost all competitors gave the natural order Composite in answer to Question IX.; two gave *Papaveraceae* and several *Leguminosae*. A number of writers evidently did not quite know the difference between natural order, genus, species, and variety. The favourite blue-flowered annual was *Phacelia campanularia*; some chose the Cornflower, others the Larkspur. Many papers were disqualified through the writers failing to conform to the rules; for instance, giving seven or eight flowers when only six were asked for.

FIRST PRIZE ANSWERS.

- I.—Perpetual Perfection Ten week Stocks white, yellow, carmine, and blue, Mont Blanc, Princess Alice, All the Year Round, Improved Queen white, scarlet, purple, pink, and yellow.
- II.—*Asters* Victoria, sinensis, Comet, Jewel, Ostrich Plume, and Giant French.
- III.—Sweet Peas Dorothy Eckford, white; King Edward VII., crimson; Gladys Unwin, pink; Lady G. Hamilton, lavender; Othello, dark maroon; and Miss Willmott, salmon-rose.
- IV.—*Arctotis grandis*, *Bartonia aurea*, annual *Chrysanthemum*, *Cosmea bipinnata*, blue Cornflower, *Clarkia Salmon Queen*, *Coreopsis*, *Lavatera rosea splendens*, *Lupinus Hartwegii* and hybridus *atrocaeruleus*, *Double African Marigold* (lemon and orange), *Shirley Poppy*, *Salpiglossis Euphor*, *Silvia Blue Beard*, *Scabious* (large-flowered German), and *Zinnia*.
- V.—*Phacelia campanularia*.
- VI.—*Lavatera rosea splendens*, *Coreopsis*, *Cosmea bipinnata*, *Gypsophila elegans*, *Cacalia coccinea*, and *Linaria*.
- VII.—Useful for covering old walls, nooks, arbours, pergolas, verandahs, and wire trellis; also for hiding unsightly spots in the garden and training over dead trees.
- VIII.—*Chrysanthemum coronarium*, *Coreopsis*, *Dianthus*, Stock-flowered Larkspur, Swan River Daisy, and *Clarkia*.
- IX.—Natural Order Composite: *Ageratum Dwarf Blue*, *Arctotis grandis*, *Aster Victoria*, *A. Comet*, and *A. sinensis*, *Brachycome* or *Swan River Daisy*, *Cacalia coccinea*, *Calendula officinalis*, *C. Meteor*, and *C. Orange King*, blue Cornflower, *Chrysanthemum Sutton's Morning Star*, *C. coronarium*, *C. Dunnetii*, and *C. burridgeanum*, *Coreopsis Drummondii*, *C. tinctoria*, and *C. atrosanguineum*; *Cosmea bipinnata*, *Gaillardia lorentziana* and *G. Drummondii*, *Helianthus Stella*, *H. Orion*, and *H. Miniature*, large-flowered *Helichrysum*, double *Jacobaea*, *Layia elegans*, *Marigold Striped Double French*, *M. Double African* (lemon and orange), *M. Legion of Honour*, and *M. Silver King*, *Sanvitalia procumbens*, *Sweet Sultan* (white, purple, and yellow), *Tagetes signata pumila*, double *Zinnia*, and *Hawkweed* (*Hieracium*) (red, white, and yellow).

FORTHCOMING EVENTS.

March 22.—Royal Botanic Society's Show, Botanic Gardens, Regent's Park.

March 28.—Royal Horticultural Society's Meeting; Horticultural Club Dinner at 6 p.m., followed by a lecture on "Forests, Wild and Cultivated," by Dr. Henry.

March 29.—Liverpool Horticultural Association's Show (two days).

March 30.—Royal Horticultural Society's Second Colonial Fruit and Vegetable Show (two days).

March 31.—Lee and Blackheath Horticultural Society's Meeting.

April 3.—Mansfield Horticultural Show.

NOTES OF THE WEEK.

A coloured plate of *Eustoma russellianum*, from a drawing by H. G. Moon, will be given with THE GARDEN next week.

Royal Horticultural Society.—At the general meeting of the Fellows of the society on Tuesday, the 14th inst., Mr. J. W. Oleil occupied the chair. Eighty new Fellows were elected, including Lady Havelock-Allen, the Hon. Vicary Gibbs, the Rev. H. W. Cholmeley, the Rev. Eric F. Green, Mrs. H. Acland Hood, Captain Arthur Smith, Mr. J. M. Maxwell-Lyte, Mr. Theophilus J. Salwey, and Mr. Edward Sherwood. A lecture was delivered by the Rev. Professor Henslow on "Bud Variation," which was richly illustrated by lantern slides and actual specimens. The next exhibition and meeting of this society will be held on Tuesday, the 28th inst., when a lecture will be delivered by Mr. Frank Pink on "Bananas." The society will hold a show of Colonial fruit and vegetables, both fresh and preserved, on the 30th and 31st inst., and their other spring fixtures will include the great flower show in the Inner Temple Gardens on May 30, 31, and June 1. On April 25 the National Auricula and Primula Society will hold their annual show in connexion with the Royal Horticultural Society's meeting, and the National Tulip Society will likewise hold their southern division show on May 23. The lectures on April 25 and May 9 will deal with various aspects of Japanese horticulture, and on May 23 Mr. E. N. Holmes will lecture on "Medicinal Plants, Old and New." The society's examinations in horticulture and, for teachers only, in cottage and allotment gardening will take place on April 12 and April 5 respectively.

Royal Horticultural Society's Examinations, 1905.—Intending candidates for the school teachers' examination in cottage and allotment gardening, April 5, and the general examination in horticulture, April 12, are requested to send in their entries as soon as possible. The Royal Horticultural Society is willing to hold an examination in as many different centres in Great Britain and Ireland as circumstances may demand. A capitulation fee of 5s. will be charged for every student in order partially to defray the expenses of the examination. A silver-gilt Flora medal will be awarded to the candidate gaining the highest number of marks, and each successful candidate will receive a certificate. A copy of the syllabus covering both examinations, with entry forms attached, will be sent to any person on receipt of a stamped and directed envelope. Questions set at the Royal Horticultural Society's examinations, 1893—1904, may also be obtained at the society's offices, Vincent Square, London, S.W., price 1s. 6d.

Beautiful Crocuses.—*Crocus Sieberi* var. *versicolor* is, perhaps, the rarest and most beautiful of the wild Crocuses introduced during the last fifteen years. When closed one sees the exterior segments, which are pure white, feathered and barred with carmine-purple. When open the flowers disclose a golden yellow centre, the upper half being pure white and the anthers golden yellow. *C. candidus* is a very vigorous species, with large globular flowers, the interior segments being white; the exterior is tinged and streaked lilac with yellow anthers and stigmata. It is very free. *C. Alexandri* flowers rather early. I have a very pretty late-flowering form, in every respect the same as the type, except that the exterior segments externally are tinged with a distinct deep violet-purple, leaving a pure white margin.—G. REUTHE.

Non-bursting Carnations.—"W. I." has received plenty of suggestions in answer to his enquiry for twelve good non-bursters, but I should like to be permitted to add one more. Mrs. Nicholson, a very beautiful shade of pink, something like Duchess of Fife, but much better, is in every respect a grand border Carnation.—HAYWARDS HEATH.

Corylopsis spicata.—This yellow flowered shrub is getting, as it deserves to be, more common in gardens. The flowers appear in short racemes on the old wood in advance of the leaves. Doubtless the plant which came from Messrs. Veitch and Sons' nursery to the Royal Horticultural Society's meeting on the 28th ult. had been slightly forced.—F. M.

"Round a Yorkshire Alpine Garden."—This is the title of an article that appeared in the *Yorkshire Daily Observer* last year, and now is reprinted in booklet form. It is written by Mr. W. Cudworth of Bradford, and describes an alpine garden in Calverley village, near Bradford, designed and planted by Mr. Samuel Margerison. The writer says that almost all known species of *Sedum*, *Sempervivum*, and *Saxifrage* are to be seen in this garden.

Helianthus cucumerifolius.—There are now many improved varieties of this, which some declare to be hybrids, but they are the results of cross fertilisation and selection. The flowers vary in colour and form, though the range of the former is rather restricted. They are free of bloom, and the flowers being generally on long stems they are very useful for cutting for decorative purposes. Seeds sown in the open in March produce plants which flower in the summer. There can be observed a tendency to sow somewhat thickly. The best results are obtained when the plants have ample room in which to develop.—R. D.

The Spanish Hyacinth.—I saw *Hyacinthus amethystinus robustus* flowering freely at the end of February in Mr. Bilney's garden at Weybridge. It is a delightful little thing, and the fact that it blooms with the Snowdrop renders it doubly precious. I have never grown this bulbous flower, and certainly was not aware that it came into bloom under wintry skies. I see that Mr. Smith of Newry classes it among May-flowering things, but he does not list the variety above mentioned. Can it be that this form is so much earlier than the type? There is certainly a great difference between a February and May flowering bulb. Mr. Bilney's soil is light and warm, and this little *Hyacinth* is growing above the level on rising ground, which may in some measure account for early blooming. As a May bulb this dainty little thing would lose a lot of its worth. Flowering in February, it is one of the most valuable spring flowers we have.—J. CORNHILL.

Cosmos bipinnatus.—This beautiful half-hardy annual should be grown in abundance, especially where cut flowers are wanted in late summer. Its light foliage and single Dahlia-like flowers make it very attractive and most useful for all purposes. It is especially so because it is at its best when most other flowers are nearly over. Anyone intending to give this plant a trial must sow the seed at once in heat, and get the plants well forward by planting time, or they may not see its full beauty. It should have a sunny position, when it is sure to give entire satisfaction until cut down by frost.—J. T. HIGGINS, *Rug Gardens, Corwen, North Wales.*

Daffodil poisoning.—To a recent meeting of the scientific committee of the Royal Horticultural Society, Mr. J. Lowe wrote stating that the gatherers of Daffodils often suffered from sore hands, and requesting some information as to a remedy. Mr. J. Walker wrote stating that usually only those who had chapped hands, or who failed to wash their hands after picking the flowers, suffered from the trouble. The committee were of opinion that the crystals of calcium oxalate (raphides), which are frequently in abundance in this and similar plants, were the cause of the trouble, and it was suggested that the workers should thoroughly grease their hands with tallow before picking the flowers, or should wear gloves.

A fine variety of Snowdrop (*Galanthus plicatus Fraseri*).—The regretted death of Mr. Patrick Neill Fraser reminds one of the fine variety of *Galanthus*

plicatus, which was discovered in his garden at Rockville, Edinburgh, and bears his name. This is a very handsome form of the Crimean Snowdrop, observed first, I believe, by Mr. W. B. Boyd of Faldonside, Melrose, among other plants of *G. plicatus*, and conspicuous by its size and beauty. I am fortunate enough to have had this Snowdrop for a number of years now, and I have found it extremely satisfactory in every way. With me *Galanthus plicatus* has shown the defect it often presents in many gardens of dying off suddenly without apparent cause, but Mr. Neill Fraser's variety has, on the contrary, increased very freely, while self-sown seedlings which have come into flower present all the merits of their parent. *G. p. Fraseri* has large, handsome flowers, produced on tall, stout stems, and fine reduplicated leaves.—S. ARNOTT, *Carsethorn, by Dumfries, Scotland.*

Galanthus Cassaba Boydii.—This is a distinct Snowdrop of the form of *Galanthus Elwesii*, known as Cassaba, in itself a good form and well worth growing by all who care for the Snowdrop. It was selected by Mr. W. B. Boyd of Faldonside, who knows so much about the Snowdrops, in his own garden, and is noticeable not only from the inner segments being almost entirely green, but also from the green spot on the exterior of the outer divisions. The former feature is very evident, but the latter varies somewhat, and is not absolutely constant, although nearly so. Here I have one bloom without this mark, although my plants were from Mr. Boyd himself, and this flower has the green tube shown by the others, which have come with the green spot on the exterior. Some will think little of these distinctions, but they are interesting, not only as teaching something of the past of the Snowdrop, but also as showing in what direction the seedling raiser might develop the flower. That such changes do not appeal to everyone we well know, but they add greatly to our sum of knowledge of the evolution of our favourite flowers.—S. ARNOTT.

Eupatorium petiolare.—This delightful *Eupatorium* is alluded to on page 143, and the writer there is undecided whether it is a new species or an old one reintroduced. According to the catalogue of Messrs. Cannell of Swanley, who have exhibited this species of late, the last surmise is the correct one, for they say of it: "During the botanic expedition sent out by the King of Spain, Charles IV., 1795 to 1804, Mocino discovered in Mexico a very interesting and beautiful plant, a reproduction of which is represented in the engraving. The authorities at Kew, after having seen a plant, and made comparisons with specimens in their herbarium, identified the plant as *Eupatorium petiolare*, a name which has now been definitely adopted." On page 143 the pleasing fragrance of the blossoms is not mentioned.—T.

A hybrid Heath (*Erica mediteranea hybrida*).—A somewhat belated award of merit was recently given this charming Heath by the Royal Horticultural Society, which upsets a widespread idea that these awards are given only to new plants. Such an opinion, however, is very general, and your correspondent "E. J.," page 149, seems to have fallen into the same error, for he speaks of this particular Heath as a new-comer, whereas, as a matter of fact, it has been largely grown for years. It is now eight years since I made its acquaintance, and how long previous to that it was sent out I cannot say, as its advent was not heralded by a flourish of trumpets.—T.

Shrewsbury Floral Fete.—The thirty-first exhibition of the Shropshire Horticultural Society will be held in The Quarry, Shrewsbury, on Wednesday and Thursday, August 23 and 24. The schedule of prizes, just published, gives particulars of cash prizes amounting to £1,100, as well as the silver challenge vase for Grapes (value 50 guineas), silver cups, gold and silver medals, and other valuable prizes.

The society will allot space for non-competitive exhibits, but, as the space will necessarily be limited, application must be made to the hon. secretaries, The Square, Shrewsbury, not later than August 14. Included in the schedule are the usual valuable prizes for specimen plants, cut flowers, fruits, many special prizes being offered for Sweet Peas and vegetables. Among the fruit the champion Grape class excites most interest. A first prize of £16 and a silver cup (value 50 guineas) are offered as the first prize for the best twelve bunches of Grapes in four or more varieties. This cup was first offered in 1902; it was then won by Mr. W. Shingler, gardener to Lord Hastings. In 1903 Mr. J. H. Goodacre, gardener to Lord Elvaston, was the winner, and in 1904 Mr. Shingler again was successful. To become the property of any competitor the cup must be won three times. The Shrewsbury spring show will be held on April 12.

Fruit industry of Great Britain. The Departmental Committee appointed by Lord Onslow to enquire into and report upon the fruit industry of Great Britain, held sittings on the 7th to the 10th inst. The following members were present: Mr. A. S. T. Griffith-Boscawen, M.P. (chairman), Colonel Long, M.P., Mr. C. W. Radcliffe-Cooke, Mr. Hodge, Mr. Vinson, Dr. Somerville, Mr. P. Spencer Pickering, M.A., F.R.S., the Rev. W. Wilks, M.A., and Mr. Ernest Garnsey (secretary). The committee had under their consideration the draft report prepared by the chairman.

A new strain of Cinerarias.—A new break in *Cinerarias* is being brought out by Messrs. Sutton and Sons of Reading, which, in some of its features, bids fair to commend itself to cultivators. The plants are not unduly dwarf, the flowers are compact, and individually of large size and of great substance, likely therefore to be of much endurance on the plant, and capable of withstanding the rough treatment incidental to furnishing apartments, halls, staircases, and other like places, where the larger and thinner flowers of the older varieties are apt soon to show injury. The colours noted were light and dark blue, carmine, pink, and crimson. As in new strains in general, the foliage is robust and ample, quite hiding the pots.—F. M.

The scarcity of Onions.—It is many years since good Onions have realised such exorbitant prices as at the present time, owing, to a great extent, to failures in foreign countries. I have always advocated cultivating these much more extensively than we do in this country, convinced as I am that we most certainly ought to be able to compete favourably in the production of Onions with any part of the world. Much of our land is well suited for Onion culture, which would return good profits, but is at the present time in a most pitiable condition. It is often said that unless we could draw our supplies from foreign countries uninterruptedly we should suffer greatly in consequence, and here is a case in point where, owing to our own negligence and trusting to imports, we are the sufferers. To grow Onions well the land must be deeply and thoroughly worked, adding plenty of good farmyard manure, and, when once this has been done, Onions can, fortunately, be grown on the same site for many years. Good keeping varieties only should be grown. A long season of growth is necessary, the crop should be early and carefully harvested; a most important item. The Onion fly is the most troublesome enemy, but this may be practically overcome by raising the seedlings under glass early in the spring, and planting them out early in April. Many are under the impression that this would entail too much labour, but I am absolutely certain this is not so. By sowing the seed thinly in boxes the young plants may be put out straight away, and, if put in firmly, will occasion little further trouble till the time of lifting. I am informed that this is practised largely in the American States, with the best possible results.—E. BECKETT, *E'stree.*

RIVIERA NOTES.

THERE are lessons to be learnt even from disaster, and the devastating frosts of last January's first week have brought forward some old and excellent plants that were being pushed out of the way and forgotten. What is more beautiful than the *Heavenly Bamboo* (*Nandina domestica*), with its finely cut foliage and slender stems, crowned with pyramidal clusters of brilliant crimson berries? Well may the Chinese call it the Heavenly Bamboo, meaning thereby that its grace and beauty surpasses even their indispensable Bamboo. It is rather slow growing when young, but when once established on a dry and somewhat shaded bank it is worth waiting for, and will always come to the rescue when other things fail.

Berberis nepalensis is another indispensable evergreen shrub, with very handsome foliage and long spikes of pale yellow flowers in the winter months. It has stood out in welcome relief the last six weeks, and afforded a harvest to the bees, who have found it surprisingly hard work to get a living this season. *B. japonica* is a dwarfier and inferior plant here, but in England it is more planted than *B. nepalensis*, though I should doubt if there is much difference in hardiness between them.

A hybrid *Heath* (*Erica mediterranea hybrida*) has also come much in notice this year. Its lilac flowers are really beautiful in semi-shade and moisture where the soil is not calcareous. As it is a comparatively new garden hybrid, it has not yet attained to the place its merits deserve. It is quite hardy anywhere, but I fancy its tall growth is much modified in England. As a hedge of 2 feet or 3 feet in height, cut down to that level each spring after flowering, it is even more valuable than the dwarf and delightful *Erica carnea*. The greatest surprise to me, however, has been the display of seedling varieties of

Pyrus japonica sent by a French firm to a nursery near here. The brilliant shades of salmon, pink, clear rose, and clear flesh pink, with more foliage at the time of flowering than the old red or white varieties possess, make an effect of the greatest value and beauty, and opens out quite a new field to the market gardener and florist who can force them with very little protection, and produce a bush of brilliant flower that rivals the most gorgeous *Azalea*, and yet is hardy enough for outside window decoration. To those in France who can produce such stuff freely in the open field there should be a wonderful demand for these *Pyrus* when they are better known. Among the relics that the frost has left us, the lilac sprays of

Kennedy ovalifolia stand out as the only surviving member of its race that is able to flower this spring, and as by chance it is intertwined with the rampant *Jasminum primulinum*, now in full flower, the effect is very pretty.

Jasminum primulinum is now showing what it may be like. In this climate it is excessively vigorous, like a Bramble, in fact, rooting wherever it touches the ground, and never ceasing its growth all the year round. The smaller side sprays flower profusely, and the size and colour of the flowers make it desirable where there is plenty of room, but I should fancy it is not going to supersede the old and favourite *Jasminum nudiflorum*,

which both flowers earlier and in greater profusion as far as I have observed. Perhaps when it can hang down from a height of 10 feet or 15 feet it may prove very beautiful, but it flowers so late as to compete with the *Forsythias*, which are even more beautiful here.

Prunus davidiana rubra has been full of flower this year, while the white variety has suffered greatly from the heat and drought of last summer. It is not, however, greatly different or superior in effect to the common and well-known Almond, which here flowers still earlier, and enjoys the severest droughts if on a calcareous soil. I am glad to see that the

White Iris stylosa is amenable to pot culture when well fed. For the amateur there is no more precious flower for the cold house or frame. It has been a very welcome stand-by here during the past six weeks of flower famine. EDWARD H. WOODALL.

THE FERN GARDEN.

HARDY FERNS.

THE SEASON TO PLANT.

ONCE again we approach the season when our native Ferns commence to throw up their feathery fronds, and since afterwards it is difficult to handle the plants without detriment to their beauty, it is well to anticipate matters by doing beforehand what may be requisite in the way of rearrangement, dividing, repotting, &c. Already if we examine them we shall find distinct evidences of a start in many species, the brown protective scales in the crowns of the shield Ferns are pushing asunder and revealing the white ones, which represent their youthful stage, and if we turn out a pot plant we shall see the fresh white tips of the rootlets, indicating new activity. Since, however, no obvious growth sets in until the end of March, we cannot do better than to set about carrying out any operations which may be necessary. All quite dead fronds may now be removed provided we replace the protection they afford to the crowns by a liberal mulching of leaves. Tidiness is a virtue, but in securing it is well to study Nature a little, and if we visit the Ferns in their native habitats we shall find them cosily nestling amid their own debris and that of their neighbours, and amid this damp debris we shall find them sending forth the young roots of the new growth, which exposure to dry March winds would undoubtedly cripple severely. The mulching of leaves then provides this protection, while doing away with the untidy old fronds which have hitherto performed the same office. Whatever remains alive and green should be left, and in favoured positions where the air is pure the evergreen species, Shield Ferns, Spleenworts, Hart's-tongues, and Blechnums will have retained their fronds fairly intact, though in town gardens they will probably be discoloured, and perhaps entirely killed by fog-borne poisons. Under glass, however, the evergreens should still be in good form.

With the deciduous species, such as the Lady Ferns, Royal Fern, most of the Buckler Ferns, and others, the fronds will be absolutely dead, and can be removed in their entirety. Ferns in pots and pans should be examined, and any necessary potting on be effected, removing at the same time any fronds which may have suffered from white fly or thrips last season, as these are invariably the bearers of eggs. In cases of over dryness the pots should be plunged for an hour or two to ensure a thorough soaking of the soil. Both outside and inside, where Ferns which form

crowns are concerned, these should be kept as far as possible to one crown by removing the lateral offsets. Care should, however, be taken to keep their roots as intact as possible, and at this season it does no harm to fork the plants up or turn them out, as the case may be, and so facilitate this division. Only Ferns of the shuttlecock type should be thus treated. Those with creeping root-stocks are best left alone, as by their mode of growth the fronds arise at a fair distance from each other, while with a clump or crown the fronds grow into one another, and it is, moreover, an established fact that when isolated the crowns produce much larger and finer fronds, and in the case of fine varieties these particular characters are greatly enhanced.

When repotting or making fresh stations a general compost of good loam and leaf-mould in equal portions does capitally, a liberal dash of coarse silver sand improving this compost for potting purposes. In planting Ferns in the open regard should be had to their need of protection from burning sunshine and also wind. Under the lee of a north wall is a capital site for a bed or a rockery, and in the innumerable glass houses which face north and are largely shaded by the house Ferns would thrive splendidly, while flowering plants under such conditions are rarely satisfactory. Consequently, we cannot do better than recommend the introduction to such of some of the many beautiful varieties of our native Ferns, leaving the common forms of the species to decorate our western lanes and glens and act as Nature's raw material for the "sports" or finer forms we have in our mind's eye as we write. CHAS. T. DRURY, V.M.H., F.L.S.

THE ROSE GARDEN.

GARLANDS OF ROSES.

NOW that pruning time is at hand, I would say "Woodman, spare the tree" when you come to specimens of the glorious free-growing varieties. When pruning the Ayrshires, sempervirens, and multifloras do not cut off the long, arching growths. Thin a few out if you like; in fact, it is essential that there should not be overcrowding. The growths may not appear so very thick to us now when foliage is absent, but we must try and picture what the plant will be like in June. The beautiful illustration upon THE GARDEN Almanac gives a better idea of the style to adopt in the treatment of all garland Roses than any words can convey. Roses such as *Aglaia*, *Euphrosyne*, *Flora*, *Félicité Perpétue*, *Bennett's Seedling*, *Ruga*, *Crimson Rambler*, *Thalia*, *Penzance Briars*, and hosts of others are all most amenable to this mode of growth. P.

ROSES IN POTS.

In the well-managed garden there will be several batches of Rose plants in pots, the earliest lot being almost ready to cut. If not already done the growths should receive supports, at the same time spreading them slightly outward, the object being to provide the foliage with as much sunshine and air as it can obtain. Weak doses of liquid manure will be helpful, but should be withheld as soon as colour is seen in the buds. The second batch will have buds about the size of peas. To these plants a teaspoonful of Clay's or other good fertiliser should now be afforded, pointing it into the surface with a label. The question of syringing forced plants at this season of the year has always been a moot point with growers. I am inclined to think that the plants will thrive better without the aid of the syringe, providing due attention be given to damping down the paths, &c., to check red spider.

The importance of thoroughly ripening the wood has been too often overlooked. During August and September the plants intended for

early forcing should have a good baking in a house that obtains full sun. Water, too, must be very sparingly given for a few weeks. The temperature of the early house must be kept very regular. Roses, especially those on the Briar stock, resent rapid forcing. About 55° by day is ample, unless the sun shines out brightly, then of course the glass will run up to 65° and 70°, but will do no harm. If a cold spell of weather supervenes keep the inside temperature rather low.

Air must be given very cautiously. On warm, still days open the top ventilators slightly, but when cold winds prevail then only open the side shutters on the lee side. Shutters of this description near the pipes should be provided in all Rose houses.

Mildew is best kept in check by sulphuring the pipes or by use of the vaporiser. Mix some flowers of sulphur with a little milk, then paint the hot-water pipes over. On finding a spot or two of mildew take a little sulphur in the hand and rub over the spots with the thumb and finger. It should be remembered that roots need air, and for this reason the pots are raised up on other pots. This provides also for the rapid egress of the water. In the Rose house the

HYBRID BRIAR ROSE UNA.

Of the many early-flowering garden Roses that hybridists have given us, the above variety must be regarded as one of the best. The handsome tawny yellow, Tea-like buds expand into fine large blossoms of quite 4 inches diameter, bearing two rows of petals of a lovely creamy white shade of colour. The flowers are produced in clusters of from three to six, and appear all along the growths if these latter are left to their own devices. The huge bed of Una at Kew, some 70 feet in circumference, contained but fifteen plants, and yet very little of the ground was visible. Some of the long shoots were crawling quite along the ground and studded with beautiful flowers, presenting a most striking appearance.

The growth of the Rose is Briar-like in its robustness, but exhibits its hybrid nature in the reddish foliage, wood, and prickles. Una would be a delightful Rose to mingle with the Penzance Briars or Carmine Pillar, but I think hedges of this kind will be in most request. A raised bank of good loam, planted on its summit with Una and just left to run wild, would make an ideal Rose hedge. There is no form in which such Roses are better displayed than with arched



BED OF ROSE UNA AT KEW.

benches are best covered with a layer of ashes on slates. By damping down the benches and paths sufficient humidity is obtained for the plants' requirements without the need of much syringing. Fumigating is now done so easily that there is no excuse for green fly. The XL All preparations are very safe. I have found XL All sheets the best for small structures. One sheet is sufficient for 1,000 cubic feet of space.

As the blooms expand it is a good plan to tie the centre with a piece of soft German wool. If a piece of paper be also tied round the bloom it is preserved much better, and, moreover, the blooms elongate by being treated thus. They should be quite dry before being tied up.

Climbing Roses upon the roof must be watched, so that their young growths do not touch the glass. Often a fine bud is crippled by being pressed thus against the glass. It is surprising what fine plants ordinary varieties of Tea Roses develop into when planted against walls under glass. Some time ago I saw an immense plant of Papa Gontier growing with the utmost vigour. I was informed by the owner that very rarely was there a day that a bud could not be cut from this plant.

A few early cuttings may be secured from the growths that have borne a flower. Insert such in sandy soil with good bottom-heat, and they will root readily and form nice plants by the autumn. P.

growths, and, of course, one makes this possible by planting on raised banks. P.

WHY NOT A SPRING ROSE SHOW?

THE National Rose Society is moving along on the right lines. Every Rose-lover must rejoice to see that the autumnal display of blossom is to be represented by a two days' exhibition, and I shall not be surprised if in time the picturesque effect of the autumn show does not eclipse the summer display. But there seems to me to be yet another branch of Rose culture that a National Society should take up, and that is the cultivation of Roses in pots. The Rose is such a splendid object as a pot plant, and lends itself to such a variety of artistic effects, grown in pillar, standard, weeping, or pyramid form, that there would surely be no lack of material to make a good display. I think the National Rose Society should waive the rule in this case, that all exhibitors must be members of the society, as by so doing many gardeners would be able to show their produce and perhaps in time be induced to join the society. One misses the beautiful displays of pot Roses that were brought together years ago, but even then, mixed in as they were with other plants, their beauty was somewhat marred. I should like to see a spring show exclusively of Roses, and I cannot see why this is not possible. P.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

PLANT EXPORTS FROM ENGLAND TO ITALY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—You have doubtless observed the mention in the English papers of the great event that has occurred in Italy, viz., the King's having taken the initiative in proposing to establish an International College of Agriculture in Rome. If this project is carried out there can be no question of the benefits likely to accrue to this country, but my object in addressing you on the subject is not to dwell on these, but to point out that this would seem to be a most favourable moment for the leading English horticulturists to unite in presenting a memorial direct to His Majesty, drawing his attention to the injury done to the sister branch of horticulture in Italy by the law, still in force, prohibiting the importation of a single green leaf from England, and praying that it may be repealed.

This law had its origin in the fact that England, having no Vines to protect and, I believe I am right in saying, no phylloxera disease, did not join in what is known in postal parlance as the "Berne Convention," by which the various European countries interested in viticulture bound themselves to a non-importation of plants that had been grown within a certain specified radius from Vines. To say nothing of the futility of trying to keep phylloxera out of a country known to be already infested by it, there exists a regular system of contraband agencies who, for a consideration, undertake to pass parcels of English plants through the Dogana, and, further, English-grown bulbs are allowed free entry, notwithstanding that there is no better harbour of refuge for disease than bulbs in a dormant state.

Theoretically, a *permesso* from the Minister of Agriculture in Rome can be obtained, but this is practically a dead letter, as it is invariably refused to private people. The Giardino of the Municipio in Florence has this *permesso*, and so can get plants out from England, but I am not personally acquainted with any other exception being made, and some years ago Mr. Veitch told me that he would only send plants to Italy at the customer's own risk, as so many things he had formerly sent had been seized at the frontier and sold for the benefit of the railway employees at Modane.

The state of horticulture in this country is simply deplorable, and when one thinks of what it might be, and of the benefit that would certainly accrue both to Italy and to England were there more *commercio* in plants and shrubs, it is surely worth the effort to establish a better understanding in a matter of such national importance, and if the Italian Government were to abolish this vexatious prohibition which so restricts any advance in horticulture, the British Post Office authorities might, perhaps, on their part be willing to withdraw the most unjustifiable order issued some years ago by which the flower post between Italy and England was abolished. This was done in the most arbitrary manner, and no adequate notice given of the proposed change, and the time selected for making it

was only a few days before Easter, when hundreds of small market growers were expecting to make their little harvest from flowers raised for exportation to England. This affected three classes of poor people, the *contadini* who grow the flowers, the small florists who dispose of them in the market to the *forestiere*, who used to send them home to friends, and the makers of the very neat little boxes used for packing them in. I wrote at the time to draw Mr. Henniker Heaton's attention to the matter, and in his reply he assured me he never would rest till the flower post between Italy and England was re-established as before, but, so far as I know, nothing further appears to have been done in the matter.

"TUSCAN."

BRITISH AND AMERICAN APPLES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Reading the eulogistic terms in which Mr. Egleheart has referred to Newtown Pippin Apple, it is amusing to recall the reference made to this same American variety by the Hon. Mr. Turner, Agent-General for British Columbia, who, in lecturing before the Royal Horticultural Society on the 28th ult., declared that Newtown Pippin was dry, chippy, and tasteless. In the face of such contradictions whom are we to believe? Why do not the Council of the Royal Horticultural Society have a tasting trial of some half-dozen of the best Americans and the same of our own best flavoured? It is late, as a matter of justice to any varieties, to have that test applied now, but it may well be so applied in January. No doubt when the show of Colonial fruit takes place on the 30th inst. we shall see Apples in very fine form from Australia, but it would not be fair to test our varieties with those for flavour. But in midseason I think, were tests made of such as I have mentioned, the unbiased opinion would favour British Apples for juiciness and general excellence.

A. D.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—What a difference of opinion there seems to be regarding the quality of our own and that of American Apples, and how very pronounced is the attitude Mr. Egleheart has taken in favour of the foreign fruit. Some of his admissions cannot, I think, be supported by facts. Mr. Egleheart describes that best of English Apples, Cox's Orange Pippin, as a supremely good one, and in almost the same breath condemns it because of its short season. He considers it past its best at the end of November. If Mr. Egleheart preaches such doctrines as this he certainly will not get a very large following from THE GARDEN readers, for the Apple culturist will clearly see that he has not stored them well, or has not had good fruit to pass judgment upon. At the end of November I contend that its season has only then just commenced, and most decidedly there is no loss of flavour or crispness of texture at Christmas. Very much depends on the store-room as regards these qualities, and if they are lost by Christmas the fruits must have been badly kept. Then, again, it is said we must "fall back upon hopelessly second-rate Apples from January onward," a direct injustice to several standard English Apples. What of Egremont Russet, Claygate Pearmain, Reinette du Canada, Mannington's Pearmain, Court Pendu Plat, Sturmer Pippin, Cockle's Pippin, Duke of Devonshire, Fearn's Pippin, Rosemary Russet, and King's Acre Pippin? These are well known winter Apples, and I am sure Mr. Bunyard, from his now famous fruit store, could give a much longer list of Apples, both crisp and good flavoured, extending the season well into the spring months.

Mr. Egleheart may be correct in saying there has been no Apple raising on an extensive scale carried out in this country, but British fruit

catalogues and censuses show already an undue multiplication of names. The American method of severely limiting the number of sorts has so long been held up as an example of what the British fruit grower should imitate. While admitting these several truths, there is no gain-saying the fact that we have but one Cox's Orange Pippin; the only other Apple of similar flavour is the Cornish Gilliflower. If the flavour of these Apples could be blended into, say, Sturmer Pippin, and so continue the winter Cox's Orange into summer, I am sure Mr. Egleheart would realise at least one of his dreams.

W. STRUGNELL.

POTATO TRIALS AT CAMBRIDGE UNIVERSITY FARM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Among many new varieties of Potatoes introduced during the last three or four years, those raised and distributed by the late Mr. William Kerr stand out as being of exceptional quality. Those of us who personally knew Mr. Kerr feel regret that he was not spared to see the triumph of his splendid Duchess of Cornwall, which is certainly all or more than Mr. Kerr claimed for it. Since the International Potato Show in 1892 I have received from Mr. Kerr (almost every year) some of his choice seedlings, and have found them exceedingly good in crop and quality. Recently I had the honour of judging cooked Potatoes at the Cambridge University experimental farm, when Professor Middleton decided to award points as follows: Flavour, 15; texture, 10; colour, 5. Twenty-four varieties were tested, and from the following results it will be seen that Kerr's varieties hold a very high position.

RESULTS OF COOKING TEST.

Name of Variety.	Flavour.	Texture.	Colour.	Total.
1 Langworthy	10	7	4	21
2 Kerr's Dumfries Model	14	10	5	29
3 Evergood	8	7	3	18
4 Cramond Blossom	12	10	5	27
5 General Buller	8	6	3	17
6 Lord Salisbury	5	6	3	14
7 Dobbie's Favourite	13	8	4	25
8 Charles Fidler	10	10	5	25
9 Kerr's King Edward	7	10	4	21
10 Dobbie's Improved Kidney	7	7	2	16
11 Royal Kidney	8	7	3	18
12 Sutton's Discovery	5	5	2	12
13 Butler's King Edward VII.	5	7	4	16
14 Kerr's Earl of Chester	15	10	5	30
15 "Bennett Burleigh	15	10	5	30
16 Northern Star	10	7	2	19
17 Kerr's Lord Methuen	12	10	5	27
18 "Lord Dundonald	13	10	5	28
19 British Queen	12	8	4	24
20 Kerr's Vicar of Ormskirk	8	7	4	19
21 Goodfellow	6	5	3	14
22 Kerr's Cigarette	7	7	4	18
23 Empress Queen	14	7	3	24
24 Factor	9	7	3	19

This variety had been exposed in boxes for sprouting, and was very green, which quite spoiled its cooking quality.

J. H. RIDGEWELL.

The Gardens, Histon, Cambs.

THE GARDENERS' ORPHAN FUND.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Should the committee agree to adopt Mr. H. J. Veitch's suggestion—that in the future, while two nominations may be received from one family, only one of those nominations shall be put on the voting paper in any one year—as, no doubt, it will be, the objection held by Mr. E. Burrell and so many other subscribers to duplicate voting for members of one family will be fully met. The consensus of opinion now is evidently in favour of some such regulation. Permit me to mention that, with a desire to induce gardeners not hitherto in any way subscribers to the Orphan Fund to become such, I recently, at a meeting of our Kingston Gardeners' Society, invited the members to have a collection at each meeting. This was agreed to. We have

had three collections, and, if continued at each meeting, shall have a handsome donation for the fund later on. Would that all gardeners' societies might do likewise.

A. DEAN.

CHINESE CABBAGES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your reply to "F. M." (page 95 THE GARDEN, 11th ult.) indicates that the cultivated Chinese Brassicas are now little known in Europe. Several Cabbage-like plants have long been grown by Chinese gardeners about most large American cities, and have become quite familiar. The best of these is the Pe-tsai (Brassica Pe-tsai, Bailey), a strong-growing plant with large, light green, crinkled leaves, forming a large, long, loose head, like a gigantic Cos Lettuce. As grown here it is an annual, running to seed soon after heading, but autumn-sown plants may be kept under shelter. It has a very good flavour when boiled as "greens," like Kale or Collards (Coleworts), and the blanched, tender leaves of the head are excellent uncooked as a salad. I have tried to develop a close-heading variety by selection, but have invariably been stopped by the best plants refusing to seed. To'erably close heads may often be found in a planting, but they have always proved barren in this locality. I have made numberless attempts to hybridise Pe-tsai with the garden Cabbage, B. Oleracea, without avail. When grown under glass, even with one species grafted on the other, and particular care taken in covering and applying pollen, no good seeds resulted, though full-sized pods were developed from the pollinated blooms, no matter which species was used as pollen or seed parent. Pe-tsai thrives best in cool, moist weather, and quickly supplies an enormous quantity of "greens." The culture is quite like that of ordinary Early Cabbage. Pe-tsai was introduced into France before 1840, and, according to the "Cyclopædia of American Horticulture," was included in the second edition of Pailieux and Bois's "Le Potager d'un Curieux, 1892."

W. VAN FLEET.

Little Silver, New Jersey.

OUR APPLE SUPPLY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Referring to your leader of the 25th ult., on "New Orchards," I trust it will always be the endeavour of all who have the interests of our home Apple supply at heart to deprecate the planting of standard trees, either on grass or otherwise, as it is quite useless for us in this country to look for such superb samples of Apples as are needed to find ready sale in competition with the beautiful American fruits, which come to us so abundantly, from orchards of the standard type of tree. The Herefordshire grower of Apples who complained that his samples obtained 6d. per bushel in the market must have sent a sorry sample indeed, but, still, how characteristic would such a sample be of vast quantities of home-grown fruit seen in our shops and stores, small, spotted with fungus, and because gathered from trees whose roots are far out of reach of manure dressings, is dry eating and flavourless. During the present winter, for instance—following, as it has, upon one of the best of Apple crops—it has not been possible for anyone anxious for our reputation as an Apple-producing nation to note the wretched samples seen in shops or markets and compare them with imported samples without a sense of humiliation. Yet these poor samples were, in the great majority of cases, the produce of standard trees in orchards. By comparison turn to the really superb samples of fruit exhibited last month at the Vincent Square Hall by Messrs. George Bunyard and Co. from Kent, and the King's Acre Nursery Company, Hereford. These collections comprised samples of most beautiful varieties rich in colour, handsome, of good size, clean, and all as firm as if just gathered. With such samples put on the market by thousands of tons—for the Apple

trade is a huge one—the highest possible prices could be obtained, and high-coloured imported fruits of inferior quality would have to take a back seat. Of course, such fruits would have to be presented for sale graded and well packed in utensils that would make them welcome in grocers' shops and stores, as American fruits are now. That is one of the matters which needs to be perpetually proclaimed until a complete reformation in marketing methods is adopted. It will not do to say that because superb fruits may be produced in nurseries they cannot be grown ordinarily. That reasoning will not do. What is possible at Maidstone, or Hereford, or Langley, or Bassaleg, or Crawley, or at Hounslow is possible anywhere else. It is a question of method. Grow dwarf trees on the Paradise stock by tens of thousands, plant fairly close for a few years, then lift all and replant wider apart. It will do the trees great good, and then let them remain, pruning just moderately. When either heavily cropped or recuperating after heavy cropping manure liberally on the surface, just as the market Grape grower year after year obtains his huge crops of Grapes. Practically what is needed is the carrying of nursery practice into our market fruit gardens, being content to grow fruit only, and not starve trees with intermediate crops of bulbs, Wallflowers, vegetables, or other things which are most injurious to them. The planting of dwarf trees needful for ten acres for four or five years would suffice if all were lifted to replant from twenty to thirty acres without purchasing a single additional tree. What sort of trees these would become and the way they would fruit under high culture we see in private gardens, whence comes so much splendid fruit. Culture of this kind would be costly, but with great crops well matured and easily gathered prices would rule high also. A. D.

GARRYA ELLIPTICA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have read with interest the notes in THE GARDEN of the 11th inst. The conclusion one is apt to draw from them seems to me to be that, except in the south of England, it is necessary to give this beautiful shrub the protection of a wall. This fact would very likely lead to its being very little grown except in the warmer parts of the country. I am therefore venturing to record the fact that I have known it to flourish in this district with no other protection than that gained from its being planted on the south side of a belt of shrubs. In this position it was obviously perfectly happy, and produced an abundance of catkins. The specimen to which I am alluding was, when I last saw it, a well-formed bush some 10 feet in height.

Old Catton, Norwich.

WILFRID TILLET.

A HARDY BLUE FLOWER.

(ANCHUSA ITALICA, THE DROPMORE VARIETY.)

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The illustration of the Dropmore variety of *Anchusa italica* which appeared on January 14 seems to have aroused widespread interest, as I have received nine letters on the subject, one of them being from the United States Department of Agriculture. The accompanying note on page 21 was entirely confined to the Dropmore variety, which I have good authority for believing is not yet in commerce. This was raised by Mr. Charles Herrin, late head gardener at Dropmore, through whom I procured my plants. There are doubtless other fine large-flowered forms, one of which Mr. Molyneux and Mr. George Ellwood write of on page 133, under the name of *superba*. Another form, entitled *Anchusa grandiflora*, is an exceedingly handsome plant, and I have heard of yet another, named *magnifica*, which my correspondent speaks very highly of. I have not met with either the first or last, and was unable to compare the individual flowers of *A. grandiflora* with those of the Dropmore variety, which, as I

mentioned on page 21, are nearly 1½ inches across. There is little doubt that all of these are superb subjects for the herbaceous border, and I am fully in accord with Mr. Ellwood in his estimate of the large-flowered *Anchusa* as "the king of hardy plants." I note that Mr. Molyneux has had the same experience with *A. superba*, in its failing to come true from seed, as I referred to in the case of the Dropmore variety. However, root cuttings appear to grow so readily that there should be no difficulty in extensively propagating the plant. Mr. Molyneux's description of his new *A. azurea* makes one long to possess it, for a pale blue form of the large-flowered *Alkanet* would be a most valuable plant for the border.

S. W. FITZHERBERT.

THE FLOWER GARDEN.

VIOLETS IN CORNWALL.

DOUBLE Violets grown at Tredethy, the Cornish seat of Colonel Francis Hext, are, without exception, the finest I have ever seen. Every plant, and there are five frames full, is in robust health, with deep green glossy leaves, and plenty of large flowers standing well up on stout stalks. Mr. F. Rundle, the



VIOLETS AT TREDETHY, CORNWALL, GROWN BY MR. F. RUNDLE.

gardener at Tredethy, who for many years has been a successful exhibitor at the Cornwall Spring Flower Show, annually held at Truro, was good enough to give me the details of his treatment. He holds that the essentials are: Plants raised from cuttings, for such plants produce much finer flowers than those obtained by division, firm planting, and careful ventilation. Early in January Mr. Rundle selects a fairly open position in the kitchen garden and bastard trenches it as for a vegetable crop, working in a liberal amount of farmyard manure. In April this plot is lightly forked over, made firm, and raked. Cuttings are then taken from the plants still flowering in the frames and inserted as firmly as possible 1 foot apart. For a time these cuttings flag and look unhealthy, but soon pick up. Throughout the summer the plants are syringed freely to keep off red spider; all runners are removed, and the Dutch hoe is freely used. During the summer the box-frames are well scrubbed, and if necessary painted.

PLANTING.—The plants are moved to the frames in September, choosing dull weather. The frames are half filled with spent hot-bed material, and upon this to within 8 inches of the top is placed a compost consisting of equal parts sound loam, from a two year old stack, leaf-soil, and spent hot-

bed manure, treading it firm and keeping the surface to the level named. The plants are carefully lifted with a good ball of soil and planted firmly at 9 inches apart, keeping the crowns at the same level as before; deep planting is to be avoided. At this point Mr. Rundle insists that it is a great mistake to place the lights on the frames for at least a fortnight, and no water is to be given. If the soil is in proper condition and the plants are carefully lifted they will not flag. Closing the frames at this period tends to draw up the crowns and make the plants weakly. After the plants have rooted in the fresh soil the lights may be put on and tilted at night, removing them by day when weather permits. All runners and decaying leaves must be constantly removed, and the surface-soil frequently stirred.

VENTILATING.—This, says Mr. Rundle, is the most important detail of successful Violet culture. Whenever possible air should be admitted at all times. But from the beginning of December to April the lights should never be drawn off, but tilted at the ends or sides according to the direction of the wind. At night they are tilted with an inch block; 2° or 3° of frost will do no harm, if more is expected the frames are closed and covered with mats during severe weather. Seven weeks before the date of the flower show all blooms and buds showing colour are removed. The beds are given a good dressing of soot, which is lightly stirred in with a handfork, and thoroughly soaked with weak cow manure liquid, washing off the liquid manure with clear rain water. As the flowers intended for exhibition begin to expand the glass of the frames is thinly shaded with whitewash to preserve their colour. Tredethy is in such an open position that screening from rough winds is necessary. This, as will be seen by the illustration, is effected by furze hurdles.

VARIETIES.—For exhibition purposes Mr. Rundle prefers *Comte de Brazza*, white; *Marie Louise*, dark blue; *Lady Hume Campbell* and *Neapolitan*, pale blue. At this time of the year the two last named are much alike, but *Neapolitan* is somewhat lighter in colour, and flowers freely throughout the winter, while *Lady Hume Campbell* is at its best only in the spring. A frame of the purple *Mrs. J. J. Astor* was very striking. The colour is good and distinct, but, unfortunately, the perfume, so necessary in a Violet, is not quite equal to that of the others. Nevertheless, it is a desirable variety, and most effective when loosely arranged in a small bowl.

SINGLE VIOLETS are grown solely in the open, under similar treatment to that given the double-flowered varieties, except that they are flowered where the cuttings are inserted. Here again the same high cultivation is in evidence, the plants having clean healthy foliage and large flowers on stout stalks. Of many varieties tried Mr. Rundle considers *Princess of Wales*, *Princess Beatrice*, *La France*, and *Admiral Avellan*, in the order given, to be the best.

Pencarrow, Cornwall.

A. C. BARTLETT.

SUMMER PLANTS FOR TUBS AND BOXES.

WHERE there is little in the way of flower-bed or border in the immediate neighbourhood of the house, some fairly large plants in tubs or boxes serve to brighten the surroundings through the summer months, and it will soon be time to make preparations. The varnished Oak and Teak tubs introduced a few years ago by Messrs. Champion are about the best for the purpose, and of these I like the round tub about 18 inches high, the same in diameter, and furnished with handles for more easy transit. Sweet Peas make a brave show, and with the necessary amount of attention will remain in flower well into the autumn. Compost for these may consist of four parts loam, one of thoroughly decomposed manure well broken up, and half a shovelful of wood ashes for each tub. In filling leave quite 2 inches clear from the top to allow for a summer

mulching. Sow thinly, one colour to each tub. I have tried many different soft-wooded greenhouse plants for a similar purpose, as *Pelargoniums* (both zonal and scented), *Marguerites*, *Hydrangeas*, *Cannas*, &c., but I prefer well-grown *Fuchsias* to anything else; they have not the stiff appearance of other things, and seem to adapt themselves to any surroundings. Varieties of stocky, vigorous habit and very free, as Mrs. Marshall, Lady Heytesbury, Annette, General Roberts, Scarcity, and Ballet Girl, are all good, and to these may be added some of the newer selfs, which are very attractive and free. A few large plants of *Francoa ramosa* associate well with the darker *Fuchsias*. If a few foliage plants are required and facilities are not to hand for growing large Palms, Bamboos, as *Simoni* or *Metake*, make very good substitutes.

Claremont.

E. BURRELL.

YUCCA GUATEMALENSIS.

A *YUCCA* over 40 feet high, with a trunk 6 feet in girth at the base, a branched head of dark green foliage and two enormous sheaf-like panicles of large, Lily-like, ivory-white, fragrant flowers is surely a plant to be admired, even by horticulturists of fastidious tastes such as Mr. Gumbleton. It certainly caused some excitement at Kew last year, when it was one of the most striking of the big things in the temperate house, where it has grown for at least the last twenty-five years and has flowered several times. The illustration here given is from a photograph taken last year by Mr. Raffill from the gallery of the house, and, although it does not suggest the enormous proportions of the plant, it affords a very good idea of the grandeur of its head when the flowers were at their best.

Not only is this the largest *Yucca* known in European gardens, but it is one of the handsomest of a genus which includes such beautiful plants as *Y. gloriosa*, *Y. recurvifolia*, &c. Mr. Gumbleton considers such a plant unworthy of a quarto plate in the *Botanical Magazine*. His taste, however, is not altogether catholic. In the opinion of all good judges this *Yucca* is one of the best things figured in recent years, and a first-rate plant for a large conservatory. W. W.

A LETTER FROM AMERICA.

EFFECTS OF FOG ON GLASS HOUSES (page 72).—Dear old Kew! You talk about London fogs and London smoke, and, as I lived there and worked there for years, I well remember what they are. But here in Pittsburg, the busiest beehive and most industrial city on earth, coal and iron prevailing, we too have fogs; not so much as you have, though, and smoke immeasurably more than you have. The glass of our greenhouses is black, and it

is only by repeated washings we keep it fairly clean. For this purpose we use a solution of hydrofluoric acid. First wet the glass, then with a wide soft brush wipe it over with the solution, and immediately wash it off with clean water. The acid cuts and unfastens the dirt on the glass. But all plants must be removed for the time being from under the glass, as every drip of the solution on the leaves means a spot. This saves an immense amount of rubbing. Don't be afraid of it, we have been using this for years. But don't use it too strong; dilute it with water. We have tried many other things—oxalic acid,

over and intertwining among the bushes, but I had more blooms on our own vines at home than were in view on the wild plants, and I really believe our greenhouse flowers—worse luck to it!—smelled stronger than those in the woods. How delightful it is to meet the rare exotics one grows so tenderly at home, in their own country, in their native element; and how we note every phase of their associations, environment, and cultural conditions, to see if ours are right or wrong. Keep red spider off of the Pelican plant, however, and ours are all right.

A note about lawns.—As the lovely velvety lawns of England are proverbial the world over, please forgive me if I tell you something about how I treat a new lawn. This is suggested by your note on page 80. I have been at this work for many years, and laid down hundreds of acres of park, golf, and garden lawns. Weeds are the curse of our lawns, and we have one very bad weed, namely, Crab Grass, an annual that, once it gets in, is almost ineradicable, hence we must begin aright. Say the land has been properly unfastened, graded, and fertilised, and all inequalities filled up and the surface smoothened, I top-dress it with 2 inches to 3 inches deep of fresh loam, then level it very carefully and smoothly, and sow it and rake in the seed. The value of the top-dressing is what I wish to tell you about. The manure is full of the seeds of weeds, more especially mixed or cow manure, and if near the surface these seeds will surely grow. But I go to an old field, and skin off the sod, say, 3 inches deep, throwing it aside, and load up 3 inches to 4 inches or more deep of the loam that was under that sod, and cart that on to the surface of the new lawn. There are very few seeds in this loam, and on it we get a very clean germination of grass. After the grass comes up don't let it get long enough for the scythe, but run over it with a new or sharp-edged mowing machine; this cuts down the ranker grasses, and gives the shorter denser grasses, which are usually the latest to



YUCCA GUATEMALENSIS IN THE TEMPERATE HOUSE AT KEW.

muriatic acid, &c.—but found nothing as good as the hydrofluoric. The deposit of soot here is persistent, it is falling every day in the year, and this is why our commercial florists have been driven to the suburbs and outside towns. Do we manage to grow plants? Indeed we do. You ought to see the Phipps Conservatories at Easter.

That Pelican flower (page 77).—Yes, I have grown it; had one of the first plants Mr. Sturtevant sent out. But doesn't it smell! Oh, how I remember the first time I saw these big *Aristolochias* in bloom in their native wilds! It was in a thicket of trees and bushes near the Rio Cobra River in Central Jamaica. There it was clambering

germinate and the most useful for carpeting, a chance to get up and assert themselves. Never let the strong grasses get ahead. Use artificial fertilisers afterwards. There are certain brands specially prepared for grass, and there are no weed seeds in it as there are in top-dressings of farmyard manure. Go over them and hand-weed the lawns if necessary as soon as the weeds show themselves well above the ground. If this is done at first there will be very little trouble afterwards; the thickening grass and frequent mowings are apt to do the rest. I never sow the seed plain from hand; I always mix it with sifted moist loam. In this way, if thoroughly mixed, a little wind at sowing

time has no effect in blowing the seeds unevenly. As a protection against birds I put the larger seed, as Rye Grass, into a wide box, and sprinkle a few drops of linseed oil over it, then mix it very thoroughly so as to moisten all the seeds a little without making them wet. Then dust a little red lead on to the seed and mix it all up again; the lead sticks to the oil, and the oil to the seed. Now put in your finer seeds and mix all up together, then mix with the loam, and it is ready for sowing. Even the sparrows will not eat the leaded seeds, and it does not hurt the germination of the grass in the least. I may say if you can get the surfacing loam from an old pasture field so much the better, and the thinner the sod may be removed the greater the depth one can get of the good soil.

W. FALCONER.

ANEMONE HEPATICA.

A CORRESPONDENT (D. Harris) asks a question about the correct name of Hepatica. It is one that often arises

among gardeners and amateurs. The right name is *Anemone Hepatica*. Note the capital H to Hepatica. The older name was *Hepatica triloba*. The plant is so old a favourite in gardens that the well-known name is naturally unwilling to leave it; indeed, it has grown into the language, and has now become the popular name. Of late years botanists have been at work revising the classification of plants, and the tendency, strongest perhaps among English botanists, has been not to multiply genera, but to simplify them. Thus in the older days Hepatica, though always known to be closely allied to Anemone, was kept as a separate genus, but now it is included in Anemone. Hence the name Hepatica, which was formerly the name of a genus, now becomes the name of the one species which is the parent of the many varieties of the old garden Hepatica.

An interesting point to note is that when this occurs botanists have agreed to record the history of the name, and its removal from generic to specific rank, by retaining the capital letter in the newly-adopted specific name. Thus what was *Hepatica triloba* is

now *Anemone Hepatica*, and *Hepatica angulosa* is *Anemone angulosa*.

You will occasionally come across cases of this retention of the older generic name for specific use, with the accompanying capital letter where you would not expect one, as, for instance, among well-known shrubs such as *Berberis Aquifolium* and *Viburnum Opulus*. This use of the capital letter will, of course, not be confounded with its occurrence in those generic names that are derived from personal names, as *Ampelopsis Veitchii*, meaning Veitch's *Ampelopsis*.

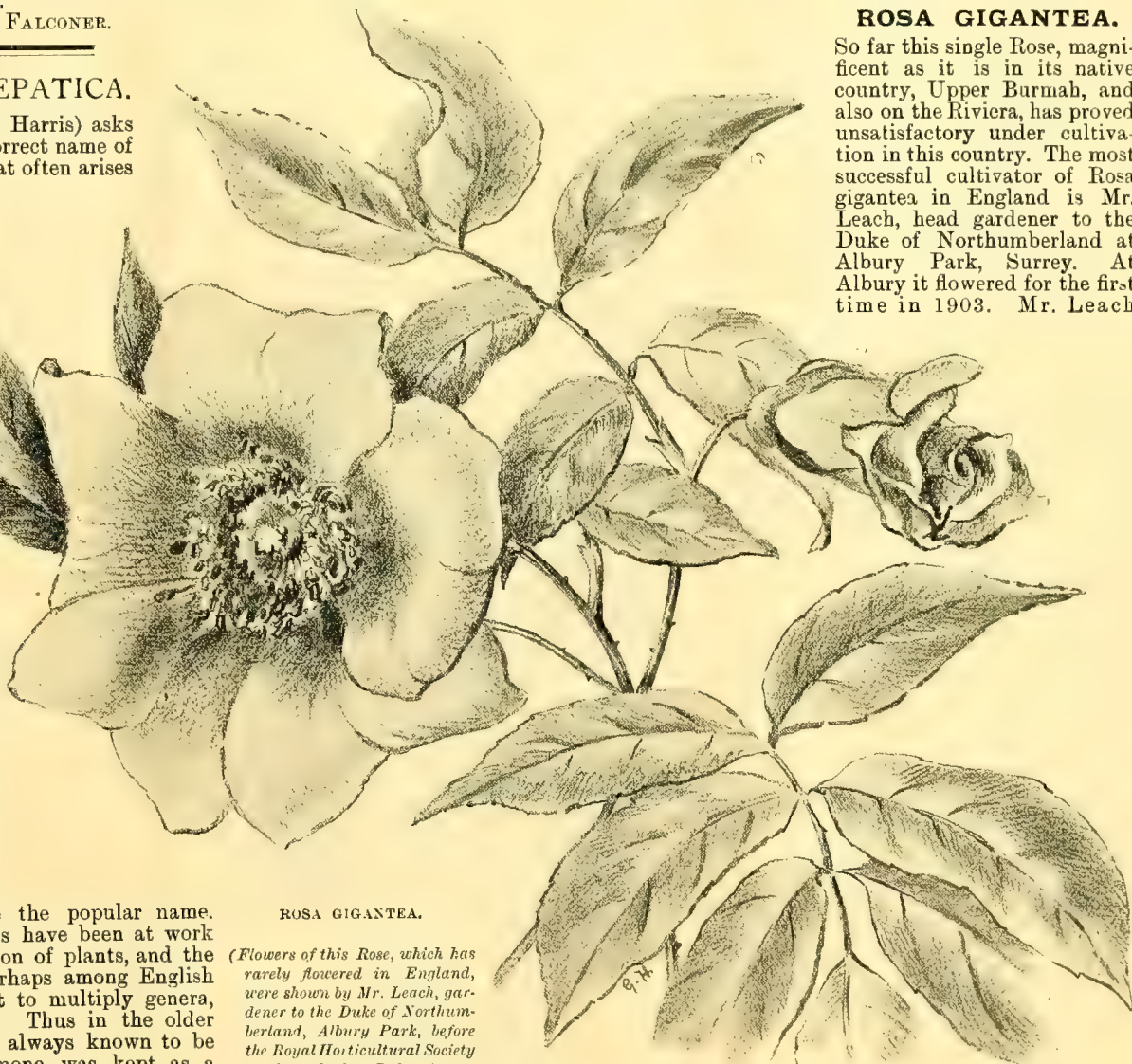
There is another point to note about some of these names, of which a good instance occurs in "*Berberis Aquifolium*." In English we are not troubled with genders in the case

moon masculine. Anyone who has the least acquaintance with Latin knows that the termination "is," as in "*Berberis*," denotes a feminine word, and that the termination "um" is neuter. But here we have a feminine generic name and the accompanying specific name with a neuter termination. This is because botanists, when they agreed to retain the old generic name as the new specific one, decided to retain it in its old form without any alteration whatever.

The name "*Hepatica*" alone, not used in a botanical sense, has been generally adopted as the popular name of the plant, and may be considered as good English; just as we have adopted and commonly use the names *Iris*, *Anemone*, *Azalea*, &c. G. J.

ROSA GIGANTEA.

So far this single Rose, magnificent as it is in its native country, Upper Burmah, and also on the Riviera, has proved unsatisfactory under cultivation in this country. The most successful cultivator of *Rosa gigantea* in England is Mr. Leach, head gardener to the Duke of Northumberland at Albury Park, Surrey. At Albury it flowered for the first time in 1903. Mr. Leach



ROSA GIGANTEA.

(Flowers of this Rose, which has rarely flowered in England, were shown by Mr. Leach, gardener to the Duke of Northumberland, Albury Park, before the Royal Horticultural Society on the 28th ult. Reduced.)

of names of inanimate objects; but in Greek and Latin, and European languages generally every noun is either masculine or feminine—apparently for no particular reason; indeed, in some of these languages there are three genders—masculine, feminine, and neuter. Why a language was ever burdened with such a useless complication it is hard to say, for there is no general rule. Thus in French the sun is masculine and the moon feminine, while in German the sun is feminine and the

exhibited some flowering shoots at the meeting of the Royal Horticultural Society on the 28th ult., and obtained for them a cultural commendation and a botanical certificate. The flowers shown on the 28th ult. were not so fine as we have seen in the South of France. In Lord Brougham's garden at Cannes the flowers measured 6 inches across. Those shown by Mr. Leach were white, and the buds were buff-coloured. Different descriptions of this Rose show that the flowers vary in colour.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

DISBUDDING is thinning the shoots of fruit trees and other plants for the purpose of concentrating the growing force into fewer channels. The Peach, for instance, produces many more young shoots than can be permitted to remain, and the surplus are disbudded when about 1 inch or 2 inches long. This is done gradually, spreading the work over two or three weeks to avoid giving a check to the growth. When disbudding is finished there is usually only two shoots left on each branch—one near the base, and the leader. The latter is left to draw up the sap to nourish the young fruit, without which Peaches would not properly develop.

Foreright Shoots.—These are shoots which spring out from the front of the branches at nearly right angles, and cannot be utilised in any way for extending the trees. In the case of the Peach they are removed altogether, but with the Pear and other trained trees are shortened back in summer, when getting a little firm at the base, to four leaves. Foreright shoots are also known by the term "breast wood," because they spring direct from the front or breast of the trees. These terms are only used in the case of trained trees on walls or espaliers.

Summer Pruning of Fruit Trees.—This is important work, and in the case of wall trees should begin about the end of July and be divided into three periods, with intervals of ten days between, doing the top of the trees first and the bottom last. The object of this is to equalise the flow of the sap and give additional support to the bottom branches. It is found in practice that if four perfect leaves are left on each spur the back eyes will fill up, and some will in due course form fruit-buds that will develop blossoms, but overcrowding should be avoided. At the winter pruning the snags left by the summer pruner are shortened to two buds, and if the spurs are much crowded some of the longest are removed altogether to keep the fruit blossom near the wall to secure its protection. If a little attention is given to this matter annually the trees will not get out of hand, and the work of thinning will be comparatively light. It is simply a question of doing the right thing at the right time.

Cheap Plants.—This is an age of cheapness. Competition has brought down the price, as it always does, but the business is worked at a very small profit and can only be done on a cash basis. The increase of gardening literature—as, besides the weekly gardening papers, many of the daily and weekly journals have a gardening column—has let in a flood of gardening advertisements, in which plants are offered at very low rates. Some of the plants are very poor stuff, but the price is so low that if only half grows the buyer is generally satisfied. Only those firms who deal fairly in the long run find the business answer.

Some Hedge Plants.—The Holly when well managed forms a grand fence either at the boundary or in the garden. If one could afford to wait, a strong hedge could be raised from seeds for almost a normal sum, but the seeds do not germinate till the second year. Young plants 1 foot high, selected with leaders, will make a good hedge in from six to eight years if the land is well broken up and manured. The English Yew comes next to the Holly, but, being poisonous, can only be planted in enclosed grounds. For a boundary fence Cherry Plum, either alone or mixed with common Privet at the rate of three Plums to one Privet, makes a good fence.

Belgium for Azaleas.—The neighbourhood of Ghent contains many Azalea nurseries, whose output of plants find their way into England or America. The majority of these pass into the hands of the market man, who disroots until he can get the balls into 5-inch or 6-inch pots. Scarcely any other plant would submit to so much injury and still retain the flower-buds, but these little disrooted plants do flower amazingly, and are forced into bloom before or by Easter and sold in the markets all over the country.

Azaleas after Flowering.—The majority of the Azaleas imported annually, which amounts to many thousands, die after flowering from neglect. They are easy enough to manage, but they must



A TYPICAL BUSH APPLE.

not be permitted to get dust-dry at any time. After flowering remove faded flowers and seed-pods, and keep in a shady greenhouse, regularly syringed, to make growth. When the growth is getting a bit firm in July place outside on a cool ash bed, still syringing freely and giving water when necessary.

Value of Firm Potting.—There is more than one advantage from firm potting. In the first place, when the soil is pressed firmly in the pot it contains more food for the roots and the soil is more retentive of moisture. Excessive watering is not an unmixed good, as all the water that passes through must carry some of the fertilising matter with it. Small though it may be, there is really a loss, which has to be made good

ultimately by adding something to the water, and, secondly, firm potting builds up firm growth which flowers abundantly. And this is really the essential point.

Hart's-tongue Ferns.—A damp, shady position, where the soil is rather heavy and freely mixed with bits of sandstone, suits these best. There is a good deal of choice, and this variety might be increased if a good selection is grouped together under suitable conditions and the spores encouraged to grow. The varieties of *Scolopendrium* vulgare produce spores freely. They thrive best near water. The finest specimens we have seen were grown in the mouth of an old well.

Shade Trees.—The Walnut is a favourite tree for placing a seat under in hot weather, because the flies are not so troublesome there as elsewhere. The Abele Poplar is a wide-spreading tree, and the motion of its foliage has a soothing effect upon the nerves in hot weather, especially when the tree is on the banks of a lake. The Huntingdon Willow makes a grand tree when it has acquired some age, but, like the Elm, is rather dangerous to sit under.

Onions for Profit.—A well-known cultivator, in addressing a body of working men, said he believed a living might be made by growing Onions. And, given suitable soil, well cultivated and manured, it is, we think, well within the compass of any real working man. But do not sow Onions on weedy land, for unless Onions are kept clean they must fail. Buy seed of a good selected stock, and, if possible, sow in boxes in January in the greenhouse or where a little heat can be given. Harden off, and plant out in rows 1 foot apart and 6 inches apart in the rows early in April. Give one or two small dressings of nitrate of soda during growth.

Propagating the Mulberry.—The Mulberry is an interesting tree, and bears freely good fruits in its old age. It is easily propagated by cuttings planted firmly in a shady border and mulched to retain the moisture in the soil. Large branches have been occasionally rooted, but there are many failures with the large truncheons, though younger shoots taken off with a heel of older wood root freely. It takes a long time to make a fruiting tree, but they live to a good old age.

Early Vegetable Marrows.—Marrows have been grown more extensively of late years under glass than was formerly the case, and those who have been able to produce them early in May and June have been well repaid for their trouble, coming in as they do at a time when choice vegetables are scarce. No time should now be lost in sowing the seed, the Bush Marrows (green or white, whichever is preferred) are the best to plant under glass, as they come earlier into bearing and occupy less space.

Bush Apple Trees.—For the small garden the bush Apple tree is the most useful; it bears fruit quickly, and does not take up much room in proportion to the crop produced. They may be grown by the side of the garden path, and there form a feature at once useful and beautiful. It is important to have a selection of suitable varieties, otherwise a good deal of labour and expense may prove valueless. The following are excellent for culture in bush form: Lady Sudeley, Cox's Orange Pippin, Cockle's Pippin (dessert), and Stirling Castle, Bismarck, and Lane's Prince Albert (cooking).

GARDENING OF THE WEEK.

FLOWER GARDEN.

CUTTINGS of Calceolarias, Pentstemons, Antirrhinums, Veronicas, Hydrangeas, Laurustinus, Choisya ternata, and others of a similar nature inserted in cold pits in the autumn will now be well rooted, and must be fully exposed excepting during inclement weather. As, probably, they were put in thickly as cuttings, they must be transplanted into other pits or sheltered positions before becoming drawn, but, if direct planting from the cutting bed early is decided upon, the points of most shoots must be nipped out to produce stubby and branching growth.

GLADIOLI should be planted when the soil is in a fit condition, and there are none better for bold groups and distant effect than *G. brencleyensis*. A large bed of these planted liberally with heavy, healthy corms about 1 foot to 1½ feet apart, and carpeted with either Antirrhinum Queen of the North or Yellow Queen, or both combined, produce a prolonged and very beautiful effect. The *G. Childsi* group are also indispensable for clumps and masses, producing noble spikes of splendid decided self colours, while the choicer of the *G. gandavensis* section are, I think, better adapted for lines or beds nearer the eye, the markings and feathering being so refined that the closer the inspection the greater the beauties revealed. Plant with a dibble 3 inches or 4 inches deep in well-enriched holding soil. With those left in the ground through the winter exercise the greatest care that no harm befall the strong young growths as they penetrate through the surface by being snapped off by workmen working among them. It is hoped that no frost severe enough to injure last year's growth of

HYDRANGEA HORTENSIS will occur thus late in the season, and, as all dead and damaged wood can now be easily seen, cut the former clean out, and the latter, together with weakly growth, cut down to the base. Shorten moderate shoots to a stout plump bud, but by all means leave alone strong, well-ripened shoots with a bold bud on the points. Fill up a pit or frame, according to requirements, with leaves or anything that will generate a very mild heat and maintain it for a short time, and cover with light suitable soil for sowing Asters, Stocks, Zinnias, Salpiglossis, Phlox Drummondii, &c. I find these and many similar do much better sown thus than in boxes in heated houses. Continue propagating all soft-wooded plants required for the embellishment of the flower garden as fast as cuttings are produced, and prick out seedlings as soon as they can be handled.

JOHN ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

ORCHIDS.

DECIDUOUS CALANTHES.—The few species of this genus and their far more numerous hybrids are undoubtedly among the most useful stove flowering plants. For winter display in the houses and for decorative purposes generally there are few plants that come in at such a useful time as a quantity of well-grown Calanthes. When the plants are well cultivated the individual spikes are large, and continue to bloom whilst increasing in length; they are exceedingly effective when arranged amongst Palms, Ferns, Cyperus, or other foliage plants. Where a number of varieties can be grown a succession of bloom may be had for about five months; the spikes when cut will last for several weeks in winter in a cool room. The flowering period commences in November with *C. vestita* and its varieties, *C. Veitchii*, *C. V. splendens*, a beautiful and distinct variety; *C. V. alba*, flowers wholly white; then follow *C. burfordiense*, *C. versicolor*, *C. bella*, *C. amabilis*, *C. sandhurstiana*, *C. Victoria Regina*, *C. Bryan*, *C. Harrisii*, *C. Sedenii*, *C. rosea*, *C. William Murray*, *C. rubro-oculata*, *C. luteo-oculata*, and many others. These continue to flower well into the new year, and when they are getting past their best the other varieties of *C. vestita*, as *C. Regnierii*, *C. sanderiana*, *C. Stevensii*, *C. Turnerii*, and its pure white variety *C. T. nivalis*, commence to open, and some of them are at the end of this month still in their full beauty. The varieties just mentioned have commenced to grow, and should be repotted as soon as the young growths are a little advanced, or immediately before the new roots begin to push out. On no account should these Calanthes be allowed to remain a second year in the old soil. Turn the plants out of the pots, and the whole of the old soil should be shaken from the pseudo-bulbs. It is better to shorten the old roots, now dead, to about 1 inch than to remove them, as by retaining them thus far they help to steady the bulbs and keep them in their places until the new roots get a firm hold of the soil. I have succeeded best when the compost has been about as follows: Three parts turfy yellow loam, from which the finer particles have been mostly shaken out, the other part consisting of a little dried cow manure, chopped sphagnum moss, and coarse clean silver sand, the whole being well mixed together. The atmospheric conditions as maintained in Melon or Cucumber houses are generally found to be far more suitable to the well-being of these plants than can be afforded in our Orchid houses or plant stoves. Select sound, clean pots, and good drainage is essential, half filling them being sufficient. The most convenient sizes are 7-inch and 8-inch pots. Into these pots place five or six moderate-sized bulbs; if very large, three or four will be sufficient, but where space is of little consequence the strongest bulbs may be planted in 5-inch pots and the smaller ones in pots of lesser size. After potting give these plants the best position available in the hottest

house. At Burford we afford no water at the roots, but syringe between the pots once or twice daily until the growths show signs of advancement. Later the amount of water may be gradually increased.

Burford Gardens, Dorking.

W. H. WHITE.

INDOOR GARDEN.

ERICAS AND EPACRIS.—Many of the earlier plants cut back are now covered with young shoots about half an inch in length. When the plants reach this stage is the best time for potting those requiring it. Fibrous peat and coarse silver sand form a suitable compost; one size larger pot will be sufficient. Ram firmly round the sides of the pots with a large label. The house should be kept a little warmer till the plants commence to root in the new soil. Syringe on bright days. Pay special attention at this period to the watering.

SUCCULENTS.—These plants receive even more attention from the amateur than the professional gardener. This is probably due to the ease with which the majority can be grown. A little neglect does not affect them so much as it does the general run of plants. Unless in very dry positions they require little water during winter. Growth is now apparent in the majority, and potting required should be attended to. When the specimens are a fair size they will go for several years without potting. Attend carefully to the drainage. A compost of three parts loam and one of broken bricks and mortar rubble will suit most of the plants. Keep the house closer and moist for a few weeks to start the plants into growth. Syringe morning and afternoon.

CAMELIAS.—As these pass out of flower prune the plants into shape. Those growing planted out can be top-dressed. Pot-grown plants may be potted if necessary. During the time of flowering the leaves will have got rather dirty, owing to withholding the syringe. Carefully sponge the leaves, and well syringe the plants with insecticide. Encourage growth by keeping the house damp, and close early in the afternoon. Give liquid manure to established plants.

GENERAL REMARKS.—Cut back *Deutzia gracilis* as they pass out of flower and encourage young growths. Repot a few each year. Divide the larger plants if more stock is required. Prune *Libonia floribunda* and start into growth. Shake off some of the old soil and repot. Insert a few cuttings to work up a young batch of plants. Introduce into a temperature of about 50° some of the *Liliums* starting into growth in the frames. Where *Salvias* are grown from seed the young plants will be ready for pricking off into boxes or small pots. *S. splendens*, *S. azurea grandiflora*, and *S. farinacea* all do well grown in this way. Keep in an intermediate house till growing freely. Some of the annuals sown early for pot work are ready for pricking off into small pots, six or eight in a pot for such things as *Clarkias*, *Schizanthus*, *Collinsias*, &c. Others will be ready for thinning and top-dressing. These include *Nemesias*, *Acrocliniums*, and *Nigella*.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

PLANTING VINES.—If the borders in which it is intended to plant one year old canes are not made, the work should be done with ut delay, as the time is near at hand when planting must be done. Opinions differ widely as to the size the borders should be at the time of planting. On this point one must be guided to some extent by local conditions. In a narrow viney the width of border would necessarily be curtailed, and to balance this deficiency it will be necessary to add to the depth. In a full-sized viney a border 5 feet wide by 2½ feet deep, with 9 inches of drainage, will be suitable for early and mid-season varieties; but for late sorts 6 inches may be added to the depth. If the subsoil is of such a nature as would cause injury to the roots, it will be prudent to place a layer of about 2 inches of concrete all over the bottom.

The drainage may consist of a layer of bricks placed close together on edge. On this place a layer of half bricks flat, finishing off with a layer of broken brickbats. The soil (which should be the best loam procurable) should be in good workable condition. Commence by placing a layer of turves grass downwards all over the drainage. Over this throw a good sprinkling of old mortar rubble, wood ashes, and Bentley's Vine Border Compound. The quantity of compound must be determined by the quality of the soil. It is a great mistake to add a lot of artificial manure to soil which is already rich in nutritious matter.

The soil must be rammed as firmly as possible. This is a very important factor in successful Grape culture. Add further layers of turf, choosing the best for building the outside wall, which should slope a little inwards. Use the same ingredients as before, mixing them thoroughly with the soil by the aid of a fork. Proceed in this manner till within 6 inches of the surface. The top 6 inches of soil should be chopped rather fine to facilitate planting. The best time for planting is just when the Vines are about to break. The roots must be carefully washed out and laid in tiers near the surface of the border. When planting is finished a good watering with a rose-can will settle the soil about the roots. The Vines must be syringed two or three times a day, and the atmosphere kept fairly warm and moist. Avoid too much artificial heat, rather take advantage of sunshine by closing early on fine afternoons. The temperature at night may be about 60°.

OUTDOOR VINES.—Grapes may be grown with a fair amount of success in southern districts, provided they are planted in favourable aspects and suitable varieties

are chosen. If the soil is of a loamy character and well drained, or in an elevated position, it is only necessary to break it up to a depth of 2 feet, adding plenty of old mortar rubble and wood ashes. Plant near the surface as advised above, and see that the border is made firm. Suitable varieties for outdoors are Black Hamburgh, Royal Muscadine, and Sweetwater.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

CARROTS.—The main sowing of this indispensable root crop must now be attended to. During a very varied experience in different localities with different soils, it has only once been my fate to have charge of a garden where the main crop of Carrots could be depended upon with any degree of certainty. In the garden referred to the soil was of a deep peaty and sandy nature. In its roots of splendid quality developed rapidly under most ordinary cultivation. It is a usual practice in many establishments to grow the main crop of Carrots in some field on the home farm, and under this condition I have never seen them fail, thus proving that their successful culture in most cases demands a complete change of soil. I find it a good plan to grow Carrots on a plot that has been occupied with Gooseberries or other small fruit bushes. These are grubbed out early in autumn, the ground deeply trenched and laid up roughly to be pulverised by winter's frost and snow. Old lime rubble, soot, and wood ashes (if obtainable) are spread over the surface of the ground early in March and allowed to lie there almost till sowing time, then the plot is lightly forked over. Ordinary cow and horse manure tends to produce forked roots. When the weather is calm and dry make the surface of the plot fine with a digging fork, and draw out drills 12 inches or 15 inches apart, according to the varieties intended to be sown; the drills need not be more than an inch deep. Sow the seed very thinly to avoid necessity of disturbing the young plants later by thinning. Sutton's Scarlet Intermediate, Long Red Sirey, and Altringham are varieties which may be depended upon for ordinary cultivation.

RHUBARB.—A plantation should at once be made. Rhubarb prefers a light, rich soil, but no fresh manure should be applied at the time of planting. By excessive manuring some varieties may be made to produce gigantic stalks, but they are never so good in quality as the smaller kinds. When breaking up the roots for planting select good crowns near the outside of the clump, with a few roots attached if possible. Central crowns are never so good for this purpose. Plant the crowns alternately 4 feet apart each way.

CAULIFLOWER.—Make a sowing of Cauliflower on a dry warm border when the ground is in order. By sowing Early London, Sutton's Magnum Bonum, and Walcheren the cutting season will be prolonged, and they should meet the demand between those already planted and the early autumn sorts.

SAVOYS make a welcome change from the ordinary Cabbage, and help to fill a gap, if better things are scarce, where they are likely to be appreciated. A pinch of Early Ulm may now be sown; being of dwarf and compact habit it will recommend itself to growers where space is limited.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

THE KITCHEN GARDEN.

A GOOD BEET FOR LATE USE.

IN a few gardens Beetroot must be had all the year round, and for our last supply we rely upon Dell's Crimson. This is, as most growers are aware, an old variety well known, but one of the best keepers we have grown, and, though small, it is good, and small or medium Beetroots are always preferable to large and coarse ones. Few, if any, roots are of finer quality or more suitable for the salad-bowl. I am aware even with this vegetable there are poor stocks, but ours—Veitch's Selected—is a perfect root as regards colour and a splendid keeper. We lift rather late, and store just free from frost, using plenty of soil or sand between the layers of roots. Treated thus the roots remain sound till the end of May, when the Globe section is ready. By many Dell's Crimson has been grown for years as a decorative plant in the flower garden, owing to its deep crimson foliage. We always sow a good breadth for late supplies in well-prepared land, and thin early. The sowing is made early in May. Grown thus the roots are quite large enough, and this variety never gives one any trouble in the cooking. This is not the case with some of the larger varieties.

G. WYTHES.

WEBB'S SENATOR PEA.

MESSRS. WEBB AND SONS, Wordsley, Stourbridge, have raised many fine Peas at the Kinver trial grounds, but perhaps one of the best at



A ROW OF WEBB'S SENATOR PEA.

present in cultivation is Webb's Senator. This celebrated main crop Pea was selected for a number of years, and is the result of a cross between the varieties Prince of Wales and Culverwell's Giant Marrow, both formerly well known for their excellent cropping qualities. It is a very remarkable cropper, the pods being produced mostly in pairs. They are of good size, and contain on an average nine large Peas, which are exceedingly sweet in flavour. It is of branching habit, grows from 2½ feet to 3 feet in height, and has proved to be a most valuable variety, professional, amateur, and market gardeners, having tested it side by side with other varieties, being unanimous in their testimony to its superiority. The merits of Senator have also evidently been recognised by the Royal Horticultural Society, who awarded it a first-class certificate. The crop represented in the photograph was grown at the Kinver trial grounds.

A VALUABLE EARLY SUMMER BEET.

CARTER'S CRIMSON BALL.

THERE is no difficulty in having good Beetroot from September and later, but before then the supply is not reliable unless the Turnip-rooted section is grown. One of the best is undoubtedly Carter's Crimson Ball, which is a most valuable early summer root of excellent quality. One great advantage is that when the seed is sown now it may be had good weeks, if not months, in advance of the long-rooted section. Crimson Ball is the earliest root to mature that I have grown, and, requiring Beet as early as possible for salad and in large quantities, we rely largely upon this sort; indeed, we force this variety, if the term can be applied, as we sow in boxes in frames, then prick out again, and later on plant on a warm border or at the foot of a south wall. I have also grown the roots in 3-inch pots at the start, but this was merely a catch crop for a few early roots. For first crop in the open Crimson Ball is specially good, and well worth a little care at the start. When the seed is sown in March in rich light soil it pays for shelter, and a later sowing in April will give a summer supply. For the last named a cooler site and a moister border is more suitable. In shallow soils the Globe Beets are valuable, and here several sowings should be made, but some of the older and later varieties lack colour, and are badly shaped when compared to the Crimson Ball.

This one received a first-class certificate from the Royal Horticultural Society. The quality is excellent and the colour good. G. WYTHES.

STOVE & GREENHOUSE.

WORK IN THE AMATEUR'S GREENHOUSE.

IMPORTANT work of the hour—if it has not been already done—is to decide upon and to send for the seeds that are to be raised during the coming season. It is a pleasant task to look through some of the lists where we may expect to find offers of seeds of interesting novelties, as well as of older and longer-proven plants. What keen delight of anticipation is aroused when one comes across some coveted seed which hitherto has been beyond one's reach. Seed-raising, however, requires much patience and some skill, and this method of acquiring plants does not appeal to everyone. Those who are content with good displays of Chinese Primulas, Persian Cyclamens, Cinerarias, and Calceolarias, which are all very beautiful, may save themselves a good deal of the initial trouble of sowing and pricking out by buying seedlings of good strains from reliable growers. Tubers of Begonias can also be bought at a very moderate cost.

There are many amateurs, however, who are not content with everyday plants, and to these seed-raising forms one of the most magnetic attractions of greenhouse work. It is astonishing how much one learns about plants by raising them from seed, which otherwise would pass unnoticed. To begin with, there is the seed itself, in many cases minute as a grain of sand and seemingly as inert, yet in that microscopic space potentially enclosing the living plant. It is worth while, before committing the contents of any seed packet to the soil, to examine them through a magnifying lens. Infinite variety of form is revealed, often with exquisite moulding and tracery of network, each after its kind. The little brown dot of a common Soapdragon seed will serve as an illustration, though by no means one of the most beautiful. Who would suppose that it is ribbed like a Peach stone and studded with outstanding points? Again, when germination has begun, and this sculptured husk has been cast off, to watch the gradual unfolding of the

Cotyledons and the manner of growth of the budding stem and leaves, with all their variations, is an exquisite pleasure to a true lover of plants. And so, through every stage of plant life, new and strange features, if we have but eyes to see them, come under observation which we should certainly miss if we gave up their cultivation to other hands than our own.

The choice of greenhouse seeds must depend to a great extent on the accommodation and winter temperature at command. For example, it would be useless to raise climbers unless the house has pillars or rafters suitable for their support, or stove plants when we possess only moderate powers of heating. It seems a trite piece of advice that in choosing seeds we should keep our limitations well in mind, yet one knows from experience that it is not wholly superfluous. It may be useful to name some desirable greenhouse plants of which seed can be obtained, which present no more than ordinary difficulties of culture.

One of the newer plants offered in seed this season is *Rehmannia angulata* from Central China, which was introduced and exhibited last year by Messrs. Veitch, and of which a beautiful coloured plate appeared in *Flora and Sylva* in the autumn. It belongs to the same order as the Foxglove, and is perennial. Possibly it might prove hardy in the extreme south-western counties, though it is undoubtedly tender; but since it makes a fine pot plant for a cool greenhouse, it will probably stand in the forefront of our greenhouse seed-list, for the bright rose-coloured spikes of flowers are very ornamental. The sooner it can be sown the better, that it may bloom in late autumn. The Foxglove order gives us many of our most showy flowering plants, such as *Angelonia angulata* and its white variety, which, though not quite novel, are seldom met with, and are worthy of a trial. Our old friend *Celsia Arcturus* is as easily grown as a weed from seed, and its bright spikes of clear Mullein-like flowers are never unwelcome. Another *Celsia* (*C. cretica*), which is biennial, also makes a handsome pot plant, and is used a good deal in this way at Kew. Though generally hardy enough for the open border in this district, every plant outside has been killed this winter. These are all very distinct plants, and the ordinary observer would scarcely guess at any affinity between them.

A good basket plant will be found in *Lotus peltorhynchus*, which has silvery foliage and scarlet-crimson Pea flowers. Another allied but very different plant, the Shamrock Pea (*Parochetus communis*), with soft, stone-blue flowers and pretty Clover-like leaves, is well worth growing for the same purpose. *Tecoma Smithi* is to be found in most seed-lists now, and has clear yellow flowers. Unlike most of its race, it is not a strong climber, but can be grown at about 18 inches high in a 6-inch pot. Statice of various species make interesting and desirable greenhouse plants, but seeds of the best-known kinds that are grown under glass are not often offered. *S. spatulata*, which I raised last year, with rosettes of sea-green leaves and red-jointed stems, is very promising, but its pink flowers are not showing as yet. As a foliage plant, *Kochia scoparia*, an old-fashioned annual, sometimes called Summer Cypress, and reintroduced within recent years, is not to be despised. The leaves turn red towards autumn, and the plant is effective and graceful.

Some bulbs can be raised with the greatest ease and flower within a reasonable time. Amongst these may be mentioned the pretty little carmine-pink *Anomatheca cruenta*, which blooms the same year from the seedling stage, and can be multiplied to any extent by home-saved seed. The charming South African *Cyrtanthi*—*C. MacKenii* and *C. lutescens* and others—are almost as easy to increase in the same way, sowing the seed as soon as it is thoroughly ripe, so that two or three bulbs are a good investment as the nucleus of a good stock. They take little room, and should be grown in some quantity to show their true character.

The list might be extended indefinitely, but the above are a few of the good greenhouse plants of which we may become possessed if we like to take the trouble to rear them for ourselves.

Guestling.

K. L. D.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

SOWING SEEDS (N. O'Neill).—You may still sow many hardy annuals, as Antirrhinums, Candytuft, Annual Chrysanthemums, Cornflowers, Mignonette, Sweet Peas, Linum, Nasturtiums, Virginian Stock, Clarkia, &c. They will be rather late in flowering, but that will be the only difference, providing you only attend to them well, not letting them get dry when young. You may also sow Early Broccoli, Kale, Savoys, Cauliflower, and Cabbage for autumn supplies. Carrots, Turnips, Beet, and Parsnips may also be sown; Dwarf French Beans, Vegetable Marrows (on a hot-bed), Peas, Lettuce, and Radish. Plant Potato Windsor Castle.

CUTTING BACK HOLLIES (F. D. B.).—Cut your Hollies back hard, to reduce them to the size you require; but you will cut away all the foliage and will only have bare stems for a time. If the plants are in good health they will furnish themselves again to a certain extent within a year. The pruning should be done about the end of April or the beginning of May, just as growth is commencing. You must, however, reduce the height of the plants as well as cut in the sides, or you will find the upper part of the plant will grow at the expense of the base. The sketch of what you propose to do is quite correct, but you should cut the sides of the upper half of the plants in rather hard in proportion to the lower part. A good mulching of manure should be given the plants when they have grown out an inch or two, and one or two good soakings of clean water during dry weather this summer will also be beneficial.

ROSE CUTTINGS (Cymro).—Your plan of laying down flat some portions of growth and covering them with soil is a very good one, and Roses will readily root in this way, especially if the soil is gritty. The little plants if carefully transplanted in April, after they have been inserted in the soil some eighteen months, will quickly make serviceable bushes. All such fine-rooted plants need some sandy soil about their roots when transplanting to give them a start. It is a pity you did not put the cuttings under a south or west wall, as then there would have been some chance of flowers this year, but we fear under the east wall the plants will have to struggle for existence. Instead of placing the bucket over the plants as you say you have done, we should advise you to have a small box with a pane of glass in the top. This will shield the little plants from the cutting east winds, and at the same time admit light. Do not attempt to transplant them this year, but wait until April, 1906.

SWEET PEAS FOR EXHIBITION (V. B. J.).—Your selection is good, but one or two changes may be advantageously made with a view to

giving a better general effect. Of the two pinks named choose Janet Scott. For Triumph, Flora Norton, Mrs. George Higginson, jun., and Coccinea, substitute Prince of Wales, Duchess of Sutherland, Navy Blue, and Miss H. C. Philbrick. Presumably you will grow quite twenty-four varieties, as it would be extremely risky to rely upon the precise number of sorts required for exhibition. Taking all things into consideration the planting from pots into clumps is preferable to transferring from boxes into rows, but much depends upon the attention given. Mr. Jones of Ruabon grows in rows, and Mr. Malcolm of Duns in clumps. Finer flowers than they produce have never been seen, so you see that it is the man and not the manner.

ROSE BON SILENE (J. S. W.).—You may not find this Rose in English lists under this name, but it is synonymous with Goubault, which is catalogued by some growers in this country. The variety is one of our oldest Teas, having been introduced some seventy years ago. It is as fragrant as any of this section, and in colour a pretty shade of rosy carmine and salmon. There is a white sport of the variety, but it is not much known. If some of these Tea Roses were revived they would create as much interest as many novelties of the present day. There used to be a most deliciously fragrant variety grown named Mme. de St. Joseph, but, alas! the newcomers, some of them not half so good, have crowded it out of existence. Bon Silene is much esteemed in the United States. If struck from cuttings, and the plants are cut hard back each year, most charming beds may be formed of this Rose and kindred sorts.

APPLE STOCKS (A. M.).—Most certainly the mention of the Quince as a stock for Apples was a slip of the pen. It should have been Paradise. No doubt most readers understood the error. It is one of the interesting facts in relation to the Pyrus family that so few should be capable of intermingling their tissue in such way as to render them capable of sustaining each other. Closely as Apples and Pears seem to be allied, yet they refuse to unite with each other, but the Pear and the Quince will do so with ease. Yet does there seem to be quite as wide a distinction between these trees as between Apple and Pear. This is all the more curious because the Apple and Pear are both of British origin or species, whilst the Paradise stock, *Pyrus præcox*, comes from Russia, and the Quince, *Pyrus vulgaris*, formerly known as *Cydonia vulgaris*, comes from Austria. These dwarfing stocks, the Paradise and the Quince, have rendered immense service to fruit culture.

PLANTS FOR AREA WITH A NORTHERN ASPECT BY THE SEA (Cymro).—The shade and nearness to the sea are two serious drawbacks to your desire to have plants there that will flower this summer. We should advise you as the soil is so shallow to procure two large tubs, such as a paraffin cask sawn in half, paint them green, or cover with virgin cork, and then fill with good soil, which you could doubtless obtain at the local florist's. We presume you could make room for such receptacles in the area, as it is useless to attempt to grow anything if you have not some good soil. Put the tub on four bricks, having previously made three or four 1-inch holes in the bottom of the tub. Put about 4 inches or 5 inches of crocks in the bottom of the tub, then fill up with the compost, which should consist of two parts loam, one part well-decayed manure, and one part sand. If from the beach it should be washed first. Into this tub you can now plant whatever you select from the list given. Whatever you select should be pot grown, that is, have a ball of earth attached to the roots. One of the best subjects would be a free-growing Ayrshire or Rambler Rose, such as Dorothy Perkins, Félicité Perpétue, or Flora. Procure extra-sized plants from 8-inch pots. Around this plant you could put out some

Fuchsias, Geraniums, or Marguerites just for the summer. These should be large plants in 5-inch pots, and just coming into bloom. You would not put out any of the bedding plants until May, but the Rose at once. Other good climbing plants for the centre of the tub are Clematis Jackmani and white Everlasting Pea, and you could surround these with any bedding plants you preferred. Another good plant for the centre would be Weigela rosea or a Myrtle. Cupressus macrocarpa is a beautiful evergreen shrub that delights in the sea air; but it is green foliage only, no blossom.

VARIOUS QUESTIONS (Caversham).—The best time to repot your Aspidistra is the present, just when it begins to make new growth. No, you may leave the flowers. It is difficult to say how often the plants should be watered, so much depends upon the size of pot, vigour of plant, heat of room, &c. Remember that the soil must never be allowed to become dry. When it appears to be getting dry, fill the pot to the rim with water twice, and wait before giving any more until it begins to get dry again. Do not give a little and often; that is bad practice. Probably the leaves will come quite perfect now you have repotted the plant. If the roots of your Ferns are showing through the bottom of the pots, and the pots are small, you should repot them. Now is a good time. Perhaps you gave the others too much water immediately after repotting. Make sure that the plant does not want water while it is in the smaller pot; then it will need little until it has rooted in the new soil of the larger pot. You may have given an unsuitable soil. Leaf-soil, peat, and loam in equal proportions, with plenty of silver sand intermixed, would suit. Yes, we will name the Ferns with pleasure, if you will send us fronds of each. You should not water the leaves. Give your Roses some more decayed farmyard manure, just forking it beneath the soil. A soil composed of equal parts of good loam and well-decomposed manure and peat, together with some coarse sand, would grow your Hellebores well, but most of them grow well in ordinary garden soil. Take care that the soil is well drained; they do not like stagnant moisture. July is the best time to lift and divide the plants.

PLANTS FOR SMALL GARDEN (Mariner).—You do not make it clear which border you mean, or whether you want plants for the border or to train against the wall. However, you say it does not get the sun until about noon. Lilies would do well in such a position. The Orange Lily (*Lilium croceum*), *L. umbellatum*, *L. Martagon*, *L. Hanson*, *L. tigrinum*, and *L. speciosum* would suit you. Plant also *Anemone japonica* (Japanese Anemone), *Michaelmas Daisies*, *Crown Imperial*, *Nicotiana affinis*, *Carnations*, *Delphiniums*, *Campanula*, *Eoothera*, *Flag Irises*, *Sunflowers*, and many more. If your border gets the afternoon and evening sun you will not find any difficulty in growing the best herbaceous perennials and bulbs.

CREEPERS (E. G. L.).—If you want good trailing plants that will last in flower a long time, Ivy-leaved Pelargoniums would probably suit you as well as anything. Among annuals you might grow the crimson or white Virginian Stock and Candytuft, although the former do not remain in flower throughout a long season. Some of the improved dwarf Nasturtiums are very attractive. *Saponaria calabrica* (pink) and variety *Scarlet Queen* would be useful. *Asperula azurea setosa*, *Campanula attica*, and *C. a. alba* would also suit you. As we said before, we should recommend Ivy-leaved Pelargoniums.

FRUIT QUERIES (R. K.).—Peach Baron Dufour is described by Simon-Louis de Metz as large, highly coloured, of first-rate quality; in season at the end of August. It is a good grower and a prolific bearer. Introduced to commerce in 1872. It is synonymous with *Grosse Madeleine de Metz*. *Pourprée Hative* (Early Purple) is a synonym of *Grosse Mignonne*. This is described

in "The Fruit Garden" as colour, pale primrose, with bright rosy cheek; flesh juicy, entirely pale primrose; flavour, brisk and rich. We have never grown Baron Dufour, but Grosse Mignonne (Pourprée Hative) can be recommended. The long rod system of pruning Vines consists in leaving a number of young shoots or rods to form the bearing shoots, and it is more suitable for some varieties than the spur system; for instance, Duke of Buccleuch, Gros Guillaume, and Golden Champion. Spur pruning is to be recommended with most. It is only in the case of shy bearing sorts that the long rod method is practised. Plant 4 feet apart.

PLANTS FOR NORTH ASPECT (Mariner).—In the position you name bulbs, such as Scillas, Crocuses, Snowdrops, and Daffodils, would grow. Plant Periwinkle, Asperula (Woodruff), Lilies of the Valley, Day Lily, Anemone japonica, Hepatica, Arabis alba fl.-pl., and Myosotis.

ESPAIER FRUIT TREES (Old Subscriber).—Plant the Cherries, Victoria Plum, and Pears against the wall. You ought to have a south or a west wall for the other Plums; the Apples would do well as espaliers, and the Damson should be in the open also.

GOOSEBERRIES (B. T. O.).—We do not recognise some of the varieties you mention, but we have answered your question so far as we are able. Green Gascoyne, an excellent variety, dessert; Warrington, good for late supply on walls in shaded spots, dessert; Lancashire Lad, a great favourite for market, both green and ripe, cooking; Whinham's Industry, cooking; Conquering Hero, cooking; Roaring Lion, cooking; Speedwell, cooking; Marigold, cooking; and Telford, cooking.

CHRYSANTHEMUM SHELTER (Mrs. R.).—To flower Chrysanthemums well they need to be grown during the summer where the sun and air have full play around them, hence the spot suggested is by no means an ideal one. Still, they should do fairly well if they are not so close to the wall that light and air are obstructed. From your note we are not quite certain whether the question refers only to the plants being taken under the wall for shelter in the autumn just prior to taking them into the greenhouse. If so, the eastern position is the worst, as in the event of an early autumnal frost the morning's sun shining full on them will do far more damage than if the plants had been shaded therefrom till the temperature had risen.

PEAT MOSS LITTER MANURE (C. L.).—Those who have to use this manure esteem it highly, but strongly advise that it be well prepared for use beforehand by throwing it into a heap, and occasionally turning it as it heats. In that way, whilst parting with much of its acidity, it is also better fitted to act as food for crops. As the primary object of the moss litter as bedding for horses is to absorb urine, it contains necessarily a much larger proportion of uric acid than straw manure does, hence the need for treating it as advised before it is applied to the ground. In turning it liberal dustings of soot will do much good. Assuming that it really was the application of this manure as a mulch to your Sweet Peas that caused some plants to be diseased—and there is no absolute proof that such was the case—still admitting that it may have been so, possibly the manure was applied in a raw state or too thickly. After all, the disease or weakness seen in your Pea plants may have been due to some weakness in the seeds, possibly saved from partially diseased plants. It is so unsafe to take anything for granted until ample proof has been furnished. With respect to the peat moss litter manure on a fairly stiff soil 3 feet in depth we should not think it could possibly prove injurious, especially if well prepared as advised. But the primary material, moss litter, is somewhat longer in decaying than straw, especially short half-decomposed straw, as all such manures

should be when applied to the ground. It may be worth your while, however, in manuring for your chief flowers—Roses, Carnations, and Sweet Peas—to vary the dressings yearly, using the moss litter manure one year and a liberal application of phosphate and potassic artificial manures the next, with thin mulchings of sweetened moss litter manure on the surface. Use wood ashes freely with all these flowers.

SHRUBBERY (M. W.).—The position you mention is not conducive to good plant growth. You should try *Euonymus radicans*, Ivy, *Berberis Mahonia* (this is not creeping), *Periwinkle*, *Cotoneaster microphylla*, and *Gaultheria Shallon*.

PROPAGATING HARDY CHINESE AND JAPANESE AZALEAS (M. D.).—These are propagated by seeds if they are obtainable, and, failing these, cuttings or by layering are the methods employed. The finer named varieties are usually grafted on stocks of *Azalea pontica* or *A. indica*, but layering is a quick and easy method of increasing any particular form it is desired to keep.

SALT FOR ASPARAGUS PLUMOSUS (Sarum).—Though salt is a valuable manure for the culinary Asparagus, which often occurs in a state of Nature near the seashore, it is quite unsuitable for *Asparagus plumosus*, that grows naturally under totally different conditions. If *Asparagus plumosus* needs a stimulant, there is nothing better than a mixture of weak liquid manure and soot water, given once a fortnight during the growing season. The various concentrated manures, which owing to their cleanly nature are now so much used, are all beneficial to this Asparagus. One caution, however, is that, as the different kinds vary in strength, the instructions supplied with the particular kind used must be carefully followed.

OUTDOOR FERNERY (R. S.).—Assuming that the expression "common hardy Ferns" applies only to normal forms, it is impracticable to subdivide an outdoor fernery into sections, showing the characteristic Ferns of separate districts, since the species are too generally distributed to permit of it. The Ferns of Devon and Cornwall, the Lake Districts, Wales, and Ireland, are common to all, and only vary in quantity, so that it should be out of the question to allocate any as exclusively characteristic of one locality. If, however, the varieties, i.e., the wild sports which have been found, and their subsequent offspring on improved lines, were in question, then undoubtedly local groups might be made, and to this end we cannot do better than refer to the "Book of British Ferns," published by Newnes, in which these are described, together with the localities where found, and most of which could be acquired either from Messrs. Stansfield or Messrs. Birkenhead, both of Sale, near Manchester.

GROWING THE HEMANTHUS (M. R. R.).—As the different species composing the genus *Hemantus* occur in a state of nature from Cape Colony to the tropical portion of Africa, it is evident that no hard and fast line as to the culture applicable to the whole of them can be laid down. Some which are natives of the southernmost portion of the continent may be grown in an ordinary greenhouse; others from Natal do best with a little more warmth, say a minimum winter temperature of 50°, while those from tropical Africa need the temperature of a stove, and even then they are somewhat difficult of cultivation. Of the greenhouse kinds, far and away the most generally met with, and certainly the finest, is *Hemantus coccineus*, which needs a soil composed principally of good loam, lightened when necessary by some leaf-mould and sand. They will stand for years without repotting, and flower best when absolutely pot-bound. This species and its near ally, the white-flowered *H. albidus*, may be kept in an ordinary sunny greenhouse, except for about two months, usually June and

July, when the leaves fade and the bulbs require a rest. This is effected by placing the plants in a sunny frame and keeping them quite dry till the flowers show through the tops of the bulbs, when they are returned to the greenhouse, well soaked, and given occasional doses of liquid manure. The flowers are usually borne towards the latter part of August or in September, and after they are faded the plants must be kept well supplied with water, until, as above stated, the leaves die down in June or thereabouts. Those from Natal, of which *H. Katherinae* is the best, need a somewhat higher temperature, that is, a minimum of 50°, and a warm house in early spring when making their growth. Such as *H. cinnabarinus*, *H. Kalbreyeri*, *H. multiflorus*, and others do best in a stove temperature, but in the case of all of them much the same treatment with regard to soil, periods of rest and growth, &c., must be observed.

COLOGYNE CRISTATA NOT FLOWERING (Mrs. L.).—Most probably the plants have been grown in a too hot and shady house, producing large, soft bulbs that never sufficiently matured to produce flower; or, again, they may have been subjected to manure waterings, which will practically bring about the same result. If manure water has been applied, leave it off. The plants may not look so robust, but much good will accrue. As the plants are in good condition, do not repot, but give them a position in the coolest part of the intermediate house where they would be shaded from strong sunshine, yet receive the benefits from good light. Another important factor is a free atmosphere in which to be grown, a condition only obtainable when there is plenty of fresh air. At this season water should be sparingly applied till the new growths have lengthened out, only affording enough to prevent undue shrivelling of the pseudo-bulbs. If the plants are grown thus, and when the new pseudo-bulbs are fully developed in the autumn water is withheld to a large degree, without doubt flowers will be freely produced next season.

SOIL FOR GARDEN (Mrs. W. J.).—The long, thread-like creature you sent is one of the centipedes (*Geophilus longicornis*), the other is a specimen of one of the snake millipedes (*Julus Londinensis*), which is very injurious to the roots of plants. The centipede I do not believe is injurious. From its relationship and the structure of its mouth (which is provided with poison fangs, which are not of any use to vegetable feeders) it should be carnivorous, but I must admit it has at times been found under very suspicious circumstances. Millipedes are very difficult to kill with any insecticide; indeed, when in the soil it is almost impossible to do so, but watering with a strong solution of nitrate of soda or common salt would kill them if they were immersed in the e. The soil was so wet and kneaded together that it was impossible to estimate its quality, but from what I could see I should think it was poor and sandy.—G. S. S.

DRYING FLOWERS FROM CANADA (S. T.).—The best way to dry flowers, such as you mention, so that they will retain their colour, is to use good blotting-paper to absorb the moisture, and change the paper after the first twelve hours, and again after the next twenty-four hours, changing each day until dry. It is also advisable to dry such things as quickly as possible, so place the press in a heated room. It is a mistake with plants that are full of moisture to put many in the press at once, you will succeed better if you have several presses going, and place a few specimens in each. If you find any difficulty in killing a plant, dip the roots or end of the stem in boiling water or in methylated spirits before placing in the press. If the flower of the plant you mention is cut open and spread out wide the colour will be better retained than if the flower is laid out and both sides get stuck together.

FUCHSIAS (Anxious One).—We think there is not much doubt that coating the pipes with sulphur has caused the Fuchsia leaves to fall. The leaves of the Fuchsia are apt to fall easily if the treatment given the plants is not suitable. Bad watering, for instance, quickly causes the leaves to fall. The leaves you sent have every appearance of being scorched around the edges, which are brown and dry. Sulphur fumes are very inimical to plant life, and when there are plants in your greenhouse or vinery the pipes should be coated very sparingly with sulphur.

NAMES OF PLANTS (A. G. C., Cappelquin).—A pale form of *Rhododendron nobleanum*. This variety is the result of crossing the bright-coloured Himalayan *R. arboreum* with the pale-tinted *R. caucasicum*, and, as numerous hybrids of this section have been raised at different times, there is a good deal of individual variation to be found among the progeny. The average *R. nobleanum* is deeper in colour than the enclosed flowers. It is, as you say, a most beautiful *Rhododendron*, particularly valuable from the fact that, given immunity from sharp frosts, it will flower throughout the winter.—*F. E. B.*—1, *Habrothamnus fasciculatus*; 2, *Davallia Tyermanni*; 3, may be an attenuated shoot of variegated-leaved *Pelargonium* *Mme. Sallerei*. Two or three words of description would greatly help one in naming this; 4, *Senecio Kämpferi aureo maculata*, better known in gardens as *Farfugium grande*.—*J. S. G.*—*Iris chinensis* (*fimbriata*) and *Correa cardinalis*.

NAMES OF FRUITS.—*Geo. B.*—1, Mannington's Pearmain; 2, King of Tompkin's County.

SHORT REPLIES.—*H. N.*—You had better write to some good nurseryman. Consult our advertisement pages.—*A. G. W.*—When using the Dutch hoe you should walk backwards, so that you do not tread upon the ground already hoed.

ERRATUM.—On page 159 (March 18) for *Arabis alpina flore-pleno folius variegatis* read *foliis*.

LATE NOTES.

National Sweet Pea Society.—We are requested to announce that the "Sweet Pea Annual" is so far out of print that no further copies can be supplied other than to those joining the society. No less than ninety new members have paid subscriptions since the new year. The secretary—Mr. Horace J. Wright, 32, Dault Road, Wandsworth, London—will send full particulars of the society and its work upon application.

Edinburgh Parks.—At a meeting of the Edinburgh Public Parks Committee, held recently, some important recommendations involving considerable expenditure were agreed to for submission to the Town Council. Among these were the following additions to the permanent staff for the Saughton Park, nursery, and golf course—a foreman, a ticket officer, a park officer, a green-keeper, and two labourers. It was also agreed to recommend the erection of a pavilion at the same park at a cost of £750, and a bowl-house and lavatory at the West Princes' Street bowling green at a cost of £300, and similar accommodation, but at a cost of only £120, for the Regent Road bowling green.

Presentation to a gardener.—Mr. E. Hubbard, head gardener to Colonel Kemp, Keswick, was recently presented with a silver tea-service and tray by the committee of the Rochdale and District Chrysanthemum Society and friends. For eight years Mr. Hubbard was head gardener to Mrs. Kemp, at Beechwood, and has now taken a similar position at Lingholm, Keswick, with Colonel Kemp. Mr. Glenister presided, and spoke of the esteem in which Mr. Hubbard was held, and other speakers testified to the ready help Mr. Hubbard was always willing to give.

Horticultural exhibition at Rome.—A general exhibition of horticultural products will be held in the Botanic Gardens, Rome, in May next. The section reserved for new plants and flowers will be open to exhibitors from other countries.

Paris International Horticultural Exhibition.—The National Horticultural Society of France has organised a great international exhibition to be held from May 20 to 28 next. Exhibitors from foreign lands are

invited to take part. The programme of the show and of the horticultural congress which is also to be held can be obtained from the address of the society, 84, Rue de Grenelle, Paris.

Acetylene gas refuse.—While thanking "J. B." for his reply to the enquiry concerning acetylene gas refuse, I should be very glad if he would kindly state the quantity of refuse used per square yard, also the length of time that should elapse after using before cropping the ground again. Any further information about the use of this refuse would no doubt prove of interest, as there must be many country houses where acetylene gas is used.—*W. A. B.*

Boston (Lines.) Flower Show will be held on July 19 and 20.—*J. G. KILLINGWORTH AND SON, Secretaries.*

POTATO-COOKING TEST.

ON Tuesday, the 7th inst., a further cooking test of Potatoes was carried out at Marks Tey by Mr. William Deal, Mr. H. J. Jones, and Mr. W. Cuthbertson, at Messrs. Dobbie and Co.'s seed farm. It will be remembered that the judges on the last occasion expressed a desire that a later trial should take place to ascertain the effect of longer keeping on the various varieties and samples. Mr. George Gordon, V.M.H., and Mr. H. Henshaw of Cambridge University Experimental Farm, again judged, with Mr. Alexander Dean. Specimens for cooking were supplied by Messrs. Davie and Co., Haddington; Messrs. Bruce and Robbie, Forfar; Messrs. Dobbie and Co., Rothsay; Messrs. T. H. Lincoln and Co., Boston; Mr. R. W. Green, Wisbech; Mr. William Deal, Kelvedon; and Mr. H. J. Jones, Lewisham.

Following the system adopted last time points were given as under:

		Flavour.	Texture.	Appearance.	Total.
1 Up-to-Date	Forfar	—	—	—	6
2 "	Lincoln	—	—	—	3
3 "	Bute	—	—	—	3
4 "	E. Lothian	3	4	3	10
5 "	Essex	—	—	—	7
6 Factor	Forfar	—	—	—	4
7 "	Lincoln	—	—	—	5
8 "	Bute	—	—	—	11
9 "	E. Lothian	4	4	3	11
10 "	Essex	—	—	—	10
11 Warrior	E. Lothian	4	4	3	11
12 "	Kent	—	—	—	6
13 Langworthy	Bute	—	—	—	6
14 "	Forfar	—	—	—	6
15 "	E. Lothian	3	3	3	9
16 "	Cambridge	—	—	—	6
17 Evergood	E. Lothian	—	—	—	4
18 "	Bute	—	—	—	4
19 "	Forfar	—	—	—	4
20 "	Lincoln	—	—	—	4
21 "	Essex	2	2	1	5
22 Northern Star	Lincoln	—	—	—	4
23 "	E. Lothian	3	4	3	10
24 "	Bute	—	—	—	3
25 "	Forfar	—	—	—	3
26 "	Essex	—	—	—	5
27 Crofter	Lincoln	—	—	—	6
28 "	Essex	5	3	2	10
29 "	Bute	—	—	—	8
30 Kg. Edward VII.	Bute	—	—	—	5
31 "	Essex	—	—	—	5
32 "	Lincoln	2	2	2	6
33 Charles Fidler	Essex	—	—	—	4
34 "	Lincoln	3	3	2	8
35 "	Bute	—	—	—	6
36 Duchess of Cornwall	Bute	—	—	—	4
37 "	Essex	—	—	—	6
38 "	Lincoln	3	3	2	8
39 Sim Gray	Bute	—	—	—	4
40 "	Essex	3	2	2	7
41 Discovery	Bute	—	—	—	6
42 "	Essex	3	4	3	10
43 "	Kent	—	—	—	5
44 Green's Favorite	Camb.	3	3	3	9
45 Peacemaker	M. Lothian	3	3	3	9
46 Windsor Castle	Lincoln	3	3	3	9
47 Scotch Triumph	E. Lothian	3	3	3	9
48 Her Majesty	Forfar	3	3	3	9
49 Garden King	Kent	3	3	3	9
50 Cambridge	Russet	—	—	—	—
51 Uncle Sam	Kent	3	3	3	9
52 Kerr's King	Edward	2	3	2	7

The best dish of each variety was left standing for twenty-four hours, after being judged, for the purpose of being then examined and its appearance reported on. Mr. Cuthbertson and Mr. Ireland examined them all carefully, and found Warrior, The Factor, Langworthy, Green's Favorite, and Peacemaker were unchanged, retaining their whiteness and flakiness. All the others had deteriorated a little.

SOCIETIES.

READING AND DISTRICT GARDENERS' ASSOCIATION.

AT the last fortnightly meeting of the above association Mr. Barks, the representative of the Redhill and Reigate Association, read a paper on "Vegetables for Home Consumption" before a good attendance of members presided over by Mr. Leonard Sutton. The culture of the sorts and varieties most suitable for table was clearly dealt with, and a good discussion followed, sustained by the president, Messrs. Neve, Townsend, Lever, Foster, Judd, Burdett, House, Carter, Exler, Hinton, Alexander, Turnham, and E. J. Dore. There were a few interesting exhibits, viz., a curious specimen of Kale, bearing the name of Perennial Daubenton Kale, and some excellent blooms of *Camellia reticulata* by Mr. W. Townsend, Sandhurst Lodge Gardens; a vase of Violet Princess of Wales, blooms of large size and sweetly scented, by Mr. W. Phipps, Westdeane Gardens, Caversham; three excellent sticks of Chicory grown on the Belgian system from the gardens of the University College (Mr. C. Foster); and a dish of well-kept Pears by Mr. H. House.

THE BLAIRGOWRIE HORTICULTURAL LECTURES.

SOME gratifying remarks were made at the last meeting of the Blairgowrie School Board regarding the course of horticultural lectures arranged by the Horticultural Association under the auspices of the School Board. The matter arose on an intimation being read from the secretary of the association to the effect that the course for the season was completed. The chairman of the board, the Rev. R. Stewart, said they had been a very great success. Mr. Gibb considered this was largely due to local practical men having given the lectures, while Mr. Bennett said they were the best ever delivered in Blairgowrie.

CROYDON HORTICULTURAL SOCIETY.

ON a recent Tuesday this society met at their rooms to hear an illustrated lecture from Mr. M. E. Mills, who gave an exceedingly interesting account of Coombe House and its gardens. This house belongs to Mr. Frank Lloyd, and is beautifully situated just outside Croydon, at the foot of Addington hills. In the extensive grounds there are many features worthy of note, especially the fine old Cedars and Beeches and a very old well of great depth used by the pilgrims years ago when passing by. Since Mr. Lloyd has been in residence several additions have been made, and in all of these strict attention has been given to improve the structural beauty of the house, and also in the garden one observes how the love of Nature's embellishments is uppermost in the mind of the owner. The lecturer is the head gardener at this establishment, and one noticed from the lantern views how the master hand of a skilled professional was displayed, for the blend of variety and colour, also the arrangement of the garden, depicted the great care bestowed on the subjects under his charge. As each picture was presented he described it fully, giving a few cultural details to those of floral beauty, whether single plants or broader panoramic stretches of the garden, so that useful hints could be gleaned as well as the appreciative designs portrayed. Principal among the views were those of the spring garden, and the lecturer, although admitting he is only an amateur at photography, yet, in the views which came out so clearly, showed he had devoted considerable study to his hobby. From views in the house to the fine timber on the estate, and the wealth of adornment to be found in the gardens at Coombe, his illustrated lecture was unanimously appreciated by an excellent attendance. With the help of Mr. J. H. Baldock, who operated the lantern, about fifty slides were shown, and at the conclusion of the lecture a very hearty vote of thanks was conveyed to Mr. Mills, also to the operator of the lantern. Mr. B. Acok, Shirley Hyrst Gardens, Addiscombe, staged a few pots of Hyacinths and Narcissi, which received a vote of thanks.

CHILDREN'S FLOWER SHOW AT DUNDEE.

ON the 11th inst. the annual flower show in connexion with the scheme for the encouragement of flower-growing among the children attending the Dundee School Board Schools took place in the Drill Hall, Dundee, the show being opened by Mrs. Gordon of Ashludie. The show was a wonderfully good one, no fewer than 3,000 exhibits being made by the children, and many of these would have done credit to many older cultivators. There was a very good attendance of the public, and much gratification was expressed at the character of the exhibits of bulbous flowers. It was mentioned in the course of the proceedings that no fewer than 38,000 bulbs had been distributed among the children.

HORTICULTURAL SOCIETIES' SCHEDULES.

NATIONAL AURICULA AND PRIMULA SOCIETY.—The twenty-eight annual report for 1904 of this society regrets to report a slight falling off of membership, and appeal to members to make a special effort to increase the number of subscribers. Will members use their best endeavours to induce their friends to support the society? The financial condition of the society may be considered satisfactory in view of the loss of members and the very liberal schedule provided. The twenty-ninth annual exhibition will be held in the Royal Horticultural Hall, Vincent Square, Westminster, under the auspices of the Royal Horticultural Society on Tuesday, April 25. Mr. James Douglas of Great Bookham, Surrey, again generously offers to supply members with a packet of alpine Auricula seed saved from best exhibition varieties to such as will undertake to sow the seed themselves and cultivate the plants, and on condition that they apply for the seed in writing to Mr. T. E. Henwood before the first day of June.

National Carnation and Picotee Society.—The twenty-eighth annual report of this society just published states that an unusual falling off of members took place during the past season, and, unfortunately, without a corresponding accession of new supporters. The committee earnestly appeal to the existing members to interest themselves personally in maintaining the high position held by the society and to endeavour to obtain new members. The exhibition for 1905 will take place on Tuesday, July 18, in the Horticultural Hall, Vincent Square. The committee desire to call especial attention to the schedule of prizes. This and that of the Auricula and Primula Society may be obtained from Mr. T. E. Henwood, 16, Hamilton Road, Reading. Mr. James Douglas, Great Bookham, Surrey, has kindly offered to supply members of the Carnation Society with seed at half-price.

Darlington.—The spring flower show of the Darlington Horticultural Society will be held on Wednesday, April 19, and, in addition to a liberal schedule of prizes, there are two new classes for children, the idea being, in the words of the secretary, "to cultivate a love of plants and flowers among the younger generation." Mr. A. H. Harron, Priestgate House, Darlington, is honorary secretary.

Sutton Rose Society.—The twenty-fourth exhibition of this society will be held in the Public Hall, Sutton, on Tuesday, July 4. The annual report states that the exhibition held last year was an unqualified success. The committee are gratified to be able to report an increase in membership, and desire to thank all members for their continued support. The hon. secretary and treasurer is Mr. E. J. Holland, Silverdale, Grange Road, Sutton.

National Potato Society.—The next exhibition will be held in the Royal Horticultural Hall, Vincent Square, on Thursday and Friday, November 23 and 24. As we have already noted, the schedule is a liberal one. The hon. secretary and treasurer is Mr. Walter P. Wright, Postling, Hythe.

Glamorgan Daffodil and Spring Flower Society.—The exhibition will be held in the Drill Hall, Cardiff, on April 19. Entries close on April 12. Entry forms should be filled up and returned to the hon. secretary, Miss Enid Williams, Wiskin Manor, Pontyclun.

Croydon Horticultural Society.—The thirty-eighth summer show of Roses and other flowers will be held in the meadow adjoining Haling Park, Croydon, on Wednesday, July 5. As usual, there is a very liberal schedule of prizes. The secretary is Mr. A. C. Ruffey, St. Andrew's Villa, 55, Church Road, Croydon.

LEITH HORTICULTURAL SOCIETY.

A MEETING of this society was held in Leith on the 16th inst. to consider the memorandum and articles of association necessary for the registration of the society as a limited liability company. There was a good attendance, presided over by Mr. Donald Reid, president. The memorandum and articles of association were adopted, and the company will be carried on under the name of the "Leith Horticultural, Industrial, and Sports Society, Limited," its principal objects being the carrying on of horticultural and other exhibitions, athletic sports, and musical and other entertainments.

ADDLESTONE, CHERTSEY, AND OTTERSHAW GARDENERS' ASSOCIATION.

THE usual monthly meeting of the above association was held at the village hall on Tuesday, the 7th inst. The president, H. Cobbett, Esq., occupied the chair. There was a good attendance of members present, and the exhibits included some very fine collections of Violets from Messrs. Powell, Skeet, and Maslin. The subject of the lecture, "The St. Louis Exhibition," being of more than ordinary interest, had been advertised, and the general public being admitted, the village hall was well filled. The lecturer, W. F. Reid, Esq., F.I.C., F.C.S., and late member of the Superior Jury at the exhibition, gave a most interesting and instructive lecture, which was splendidly illustrated by lantern slides, the lantern being manipulated by H. Stevens, Esq., of Addlestone Lodge. All the principal features of the exhibition were lucidly explained and pictorially represented by the lecturer, he dwelling, of course, most on things pertaining to horticulture; but

the lecture, which lasted over two hours, was full of interest from beginning to end, Mr. Reid showing himself to be intimately acquainted with all portions of the exhibition. At the close a hearty vote of thanks was accorded Mr. Reid for his most interesting lecture, and to Mr. Stevens for the use of his lantern.

EDINBURGH BOTANICAL SOCIETY.

At a recent meeting of the Edinburgh Botanical Society held at 5, St. Andrew Square, Edinburgh, and presided over by Professor Bayley Balfour, an interesting collection of the alpine flora of the Glenshee district was exhibited and described by Mr. William Young. A highly interesting description of Crawford's Heath (*Erica Tetralix* fl.-pl.) was given by Professor Bayley Balfour. The existence of this double variety of *E. tetralix* is not yet widely known. It was found in Connemara by Mr. F. C. Crawford a year or two ago, and, as Professor Balfour said, is a valuable plant for the garden, as well as interesting as one of the few double Heaths.

BATH GARDENERS' ASSOCIATION.

THERE was an unusually large gathering in the Old Sessions Court of the Guildhall when Mr. Challis, head gardener to the Earl of Pembroke, at Wilton House, Salisbury, read a paper to the members of this association. The chair was occupied by the Mayor, who, in introducing Mr. Challis, wished the association continued success, and remarked that if they secured floral displays month by month like the present one, it must interest all concerned.

The lecturer, who was heartily received, explained that his paper would deal rather with the principles of things that affected gardeners than with the details of cultivation. They were, of course, practical men, but he thought they might wisely combine theory with their work, for the practical gardener needed a theoretical training to make him fully efficient. His subject, "Climate with Regard to Horticulture," was a very important, very interesting, and a somewhat difficult one. The lecturer spoke of the atmosphere and its effect upon vegetation, also of the importance of selecting a good site for a garden, which so often was considered a secondary consideration; but natural defects might be considerably cured by protecting the garden through planting trees, erecting walls and fencing, and cultivating thick-set hedges.

A vote of thanks to the lecturer was moved by Mr. Cater and seconded by Mr. Milburn, and heartily accorded.

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

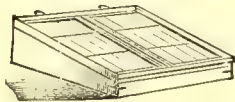
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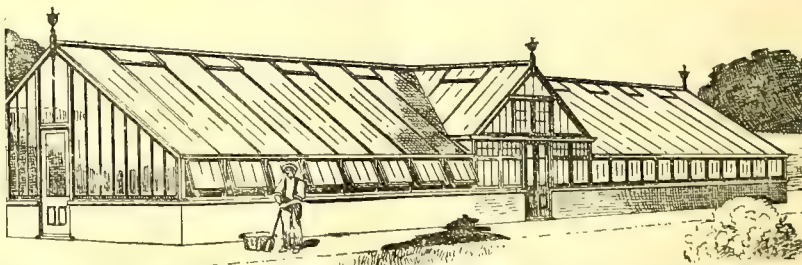
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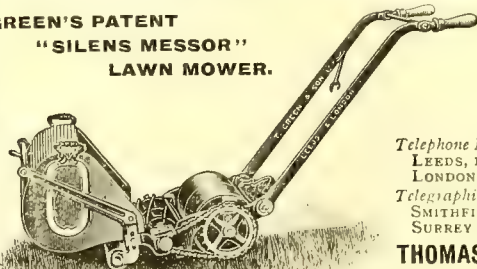
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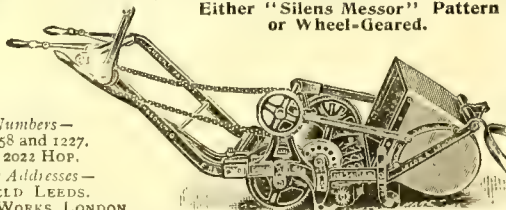
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THE GARDEN

No 1741.—VOL. LXVII.

APRIL 1, 1905.

IN DEFENCE OF THE BIRDS.

WITH many gardeners the preservation of birds—at any rate, of some of the most destructive of them—is a burning question, and where gardens are surrounded by woodlands, as many country gardens are, the damage done by birds to sprouting seeds and to fruit crops is a very real grievance. We are glad that Mr. E. Kaye Robinson is inclined to take up a brief on behalf of the bullfinch; but it has a familiar name of ill-omen in the northern counties, budfinch to wit, colloquially pronounced “boodfinch,” which has probably been softened in the south into bullfinch, and circumstantial evidence, we fear, is strongly against its mischievous propensities. We seem to remember in “Wood and Garden,” a book which finds an honoured place in most libraries, an account of Cherry trees—not old and decrepit, but young and vigorous—being so persistently harassed every spring by bullfinches that, after long patience, they had to make way for something more profitable. It is useless to try to disguise the fact that, besides bud-eating birds, greenfinches and sparrows amongst the seed-beds, and jays, blackbirds, and tits amongst the Peas and fruit trees, do take very considerable toll from garden crops. Yet there is another side to the subject.

An ancient Hebrew saying runs thus: “All things are double one against another, and God hath made nothing imperfect. One thing establisheth the good of another.” Good and ill often seem to go hand in hand in this lower world, yet in the end they work out, both together, that which is wholly good. If birds are depredators to some extent, much more are they our benefactors. The destruction of crops of all kinds by insect pests in countries where all birds, however small, are reckoned as “game” is incalculable, and hardly to be stemmed by legislation. Even in English gardens, where a too-elaborate system of wire-covering has been adopted, preventing altogether the intrusion of birds to the fruit quarters, the crops have been well nigh ruined by a plague of grubs and caterpillars. Now a single pair of tits has been known, between dawn and

dark, to make more than 400 journeys with food for their nestlings, and as these are fed exclusively with what we term blight of various sorts, it is easy to understand the clearance that is made of such gentry by these busy little workers.

But putting aside the question of profit and loss, how much of the pleasure of our gardens depends upon bird life? Against their pretty ways and tuneful notes, to say nothing of their positive usefulness, the petty delinquencies of which they may be justly accused, and which may mostly be guarded against, weigh light as one of their own feathers.

Still, for the consolation of aggrieved gardeners, we may perhaps be allowed to whisper the opinion of the late Lord Lilford—himself an ardent lover and student of birds—that overmuch protection was actually inimical to the preservation of healthy bird life. The difference, however, is enormous between over-stocking a locality and depopulating it altogether of its feathered tribes. As much as possible, therefore, let us spare and cherish the birds.

THE LILIES.

(Continued.)

LILIIUM PENDULIFLORUM. — See canadense.

L. philadelphicum (L.). — The Canadian whorl-leaved Lily. A pretty cup-flowered species widely spread throughout the northern United States in open woods. It has long been known to cultivation. The bulbs are very small, and the stems 1 foot to 2 feet high, green, very slender, and rooting freely from their bases; the leaves small, in three to four verticils. The flowers are one to three, cup-shaped, as in *bulbiferum*, light red, the petals narrow, low down, and copiously dotted with yellow zoned, purple spots. It resembles canadense in its leaves and elegance in its flowers. The perianth is thin and starry in outline, owing to the long claw of the petals. A very dainty species, refined in its colour scheme. Easy to grow. This pretty Lily requires a cool and moist site, and enjoys a place where the treatment is considered good for *Cypripediums*, *Trilliums*, and kindred plants. It prefers spongy peat or leaf-soil, and though its bulbs do not require to be kept in a wet state, the roots should have ready access to water. It is hopeless to attempt to grow it in an ordinary border, or in pots, for more than one season.

L. Philippinense. — The Philippine long-tubed Lily. A close ally of the Japanese *L. longiflorum*, and remarkable for its slender stature and very long-tubed flowers. The bulbs are small, white, resembling *longiflorum*; the stems 1 foot to 2 feet high, very slender, and rooting freely from their bases; the leaves very narrow, recurved, pale green, and 6 inches long. The flowers are solitary, rarely two or three, each 8 inches long, poised horizontally, the extreme tips only reflexing; the tube under 1 inch in width near the mouth, pure white throughout; fragrant. A rather remarkable *longiflorum*, with flowers which in a wild state are often longer than the stems. Rare in cultivation. Flowers in June. It grows on grassy slopes, at high elevations, on the Island of Luzon. This Lily is not hardy, and will only succeed in a warm greenhouse temperature. One can grow it well under treatment considered good for greenhouse *Begonias* of the *Gloire de Lorraine* section. It is a very beautiful Lily, unfortunately very rare, and apparently difficult to import in a sound condition. It is a very beautiful pot plant, and the most fascinating of all the *longiflorum* group.

L. polyphyllum (D. Don). — The many-leaved Himalayan Lily. A rare species, its flowers being midway in shape between those of *L. longiflorum* and *L. Martagon*. The bulb is small, white, resembling that of *tenuifolium*, the scales jointed; the stems 2 feet to 3 feet long, very slender, rooting freely from their bases; the leaves scattered, narrowly lance-shaped, and very numerous. The flowers in a lax spike of four to ten, coloured pale cream internally, greyish green externally, the inside of the tube heavily dotted with mauve. The tubes, always contracted at the middle, are somewhat inflated at the junction with the flower-stems, giving the buds the shape of soda water bottles. Very fragrant. Rare in cultivation. Flowers in July—August. Inhabits the temperate regions of the westernmost Himalayas, the mountains of Thibet, and Southern China, occurring at elevations of 6,000 feet to 8,000 feet. It grows in rich vegetable deposit amid shrubs, but never gregariously and in quantity. Bulbs of this Lily are very difficult to import in good condition, so that it should be raised from seeds. These should be sown in a cool frame as soon as they are obtainable, using leaf-soil and loam as a seed-bed, covering the site with tiles to prevent evaporation and ensure rapid germination, removing these as the seedlings appear. The plants should be removed to a warm border to flower or allowed to remain in the seed-beds—the better way.

G. B. MALLETT.

(To be continued.)

PRIZES FOR GARDENERS. APRIL.

FRUIT TREES IN POTS.

A First Prize of FOUR GUINEAS,

A Second Prize of TWO GUINEAS,

A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA

will be given for the best answers to the questions published below.

This competition is open to all professional gardeners. Replies must be addressed to the Editor of *THE GARDEN*, 3-5, Southampton Street, Strand, London, W.C., marked "Competition," and must reach this office not later than May 1.

- I.—Do you consider annual repotting to be beneficial to fruit trees in pots or not?
- II.—When should fruit trees in pots (not hard forced) be repotted? Give the ingredients of what you would consider to be an ideal soil. What is likely to occur after potting if proper precautions are not taken?
- III.—When would you prune Peach and Nectarine trees in pots; describe the method you would adopt.
- IV.—What is the average life of a pot fruit tree when properly grown? Complaints are often made that pot fruit trees quickly deteriorate. Why is this? Describe the best method of restoring the trees to health.
- V.—Give the best six varieties for pot culture of Peaches, Plums, and Cherries, and the best three varieties of Figs and Nectarines. Say which you consider to be the best one in each case.
- VI.—In order to have pot-grown fruits of Cherries, Plums, Peaches, and Figs ripe by the middle of May, say when you would start the trees, and give the temperatures for each fortnight until the fruits are ripe.
- VII.—What is the best chemical manure for Cherries, Plums, and Peaches? (Special concentrated manures must not be mentioned.) Say why it is the best.
- VIII.—What is the proper treatment for trees after forcing?

PRIZES OPEN TO ALL

PLAN OF A FLOWER BORDER.

A FIRST PRIZE of *Five Guineas* and a second prize of *Two Guineas* are offered for the best plan of a border of hardy perennials, 130 feet long by 10 feet wide, drawn to a scale of a quarter of an inch to a foot; bold grouping and good arrangement for colour and succession to be the main considerations. Half-hardy annuals and biennials may be included. The names of the plants to be written in their spaces on the plan—not referred to by letter or number. This competition remains open until the last day in September.

FORTHCOMING EVENTS.

- April 3.—Mansfield Horticultural Show.
April 6.—Royal Horticultural Society of Ireland's Show at Dublin.
April 11.—Royal Horticultural Society's meeting.

NOTES OF THE WEEK.

Spring and its flowers.—Spring has assuredly arrived. In the grass *Narcissus*, *Scillas*, *Chionodoxas*, *Grape Hyacinths*, and *Violets* are blooming in profusion. In the borders *Primroses*, *Violas*, and *Wallflowers* are making quite a show, whilst amongst the flowering shrubs can be counted *Cydonias*, *Prunus Pissardi*, and *Ribes*. *Forsythia suspensa* will be in flower in a few days.—E. H., *Broadstairs*.

The Henry Eckford Testimonial—A Shilling Fund.—A committee meeting to launch this estimable project was held at the Hotel Windsor on Monday, the 20th ult., Mr. Percy Waterer presiding. It was resolved that the fund should be a shilling one, so as to embrace not only the large growers, but also those whose appreciation of the work of Henry Eckford is none the less sincere because it is expressed in a modest way. It was further decided that the horticultural Press be requested to co-operate in a practical manner by publishing a weekly list of subscribers, which will be furnished by the secretary. Mr. Percy Waterer was unanimously elected chairman, Mr. Walter P. Wright treasurer, and Mr. Horace J. Wright, 32, Dault Road, Wandsworth, London, to whom all correspondence should be addressed, secretary. The subscriptions promised and received to date are as follows: Messrs. Sutton and Sons and Robert Sydenham, each 42s.; Dobbie and Co. and Percy Waterer, each 21s.; J. Wright, V.M.H., Richard Dean, V.M.H., H. J. R. Digges, R. P. Brotherton, E. T. Cook, and W. P. Wright, each 10s. 6d.; C. W. Greenwood, E. F. Hawes, Chas. H. Curtis, J. Harrison Dick, G. H. Mackereth, each 5s.; Dr. Douglas L. Freeland, 2s. 6d.; and Mr. W. C. Pagram, 1s. As early as possible a circular setting forth the aims of the promoters, with a subscription form attached, will be widely distributed. In the meantime, the secretary will be pleased to hear from those who sympathise with the movement of conveying to Mr. Henry Eckford the thanks of the horticultural world for his work in the improvement of the Sweet Pea.

The North Lonsdale Rose Society, at their annual meeting on Friday, the 17th ult., decided to offer a twenty-five guinea trophy in memory of their late chairman James Hodgson, Esq., J.P., C.C., as by his energies the society has been in a great measure raised to its present position. The trophy is for twelve vases of exhibition Roses, seven of each bloom. The society hope there will be keen competition. There will be cash prizes in connexion with the class. Although the society lost £120 on their last exhibition, many new classes were added to the schedule, one for floral table decoration, another for bunches of garden and decorative Roses, and over a dozen classes were added to the Sweet Pea section. The National Sweet Pea Society have kindly offered a classification class with prizes value £3 3s. and a silver medal. The society award as a prize open to all the most valuable trophy in the Sweet Pea world, viz., the J. Towers Settle Twenty-five Guinea Challenge Bowl. This, too, has cash prizes in connexion with it. The date is Friday, July 14, 1905. His Majesty's band of the Irish Guards is engaged to play.

Old-World Gardens.—In the Dowdeswell Galleries, New Bond Street, Mr. E. Arthur Rowe has brought together another interesting series of old-world gardens. In this collection some really beautiful gardens in Scotland are particularly noticeable, and we are shown once more here, as well as in England, every form of quaint old hedges of Yew and terrace walks, with here and there a shimmer of brilliant blue, the plumage of the peacock. The first picture we come to, "The Terrace, Drummond Castle" (No. 1), shows particularly well how Mr. Rowe manages to impress one with the air of serene

quiet which pervades these old gardens. At Drummond Castle two other particularly good paintings are "The Green Walk, Drummond Castle (No. 5)" and "A Summer's Afternoon" (No. 64). "Barncloth" has afforded Mr. Rowe many opportunities. In "The Yew Walk" (No. 43), the colouring is very tender, the sun just faintly lighting the paths. Another good painting, bright and sunny in effect this time, is "The Middle Terrace, Barncloth" (No. 62), and yet another small but charming study of the same place is "On the Lower Terrace" (No. 99), just faintly flecked with sunlight. There are many beautiful paintings of Crathes, specially good being the "Herbaceous Border, Crathes" (No. 22), "Crathes: A Walk Between High-Clipped Hedges" (No. 26), "The Garden Gate" (No. 91), a peacock in this last striking a brilliant note of blue, and "Afternoon, Crathes" (No. 101), quite a small study, but one of the best in the whole exhibition. We noticed, among other gardens, "An Old Manor House" (No. 50), a delightful old building with a bush clipped into the semblance of a bird, mounting guard, at the doorway; "Brantwood, Surbiton" (No. 59), with its bewildering array of Rose arches; a sunny picture of "Great Tangley Manor" (No. 65); flowers running riot in "The Flower Garden, Cleeve Prior Manor" (No. 89); and "The Long Walk, Castle Ashby" (No. 69), very quiet and tender in colour. Hampton Court is well represented, No. 77 being quite an important work, with a brilliant mass of colour in the foreground, others of the same place specially noteworthy being "Late Afternoon" (No. 17) and "The Herbaceous Border, Hampton Court" (No. 49).

Portrait of the King for Belfast.

A curious mistake has arisen in the paragraph which appeared in *THE GARDEN*, March 4. It is there stated that Mr. Harold Speed, the eminent artist who has painted the portrait of His Majesty, is a son of the late Mr. Edward Speed, "a well-known gardener of Matlock Bath, Derbyshire, who was brother of the late Mr. Speed of Chatsworth." This is entirely incorrect. Mr. Edward Speed, A.R.I.B.A., is a well-known architect and surveyor in Chancery Lane and Streatham, and his son is practically a Londoner. We apologise for the mistake.

Lecture on Potato culture.

On October 4, 1904, Mr. T. A. Scarlett, Market Street, Edinburgh, read a paper before the Scottish Horticultural Association on "Potatoes." It has now been published in pamphlet form, and makes most instructive reading. Writing of manures, Mr. Scarlett says: "The best artificial manure for growing quality Potatoes in conjunction with rich garden soil containing a proper proportion of lime I should call organic potash. Inorganic potash is the usual way in which potash, both sulphate and muriate, is applied. The cheapest form of potash is the crude form kainit, which contains a proportion of salt. Experiments point to the salt in kainit, or any salt, being detrimental to the quality in Potatoes, especially if applied at planting time. . . . The organic potash, or what I call organic potash, is just the residue of all weeds and rubbish burned. This sprinkled in the drills has given astonishing results in quantity and quality, but especially in quality." Preface, tables, and instructive letters are contributed by Mr. Saxby, Leominster.

Winter-blooming Pelargoniums.

In no private garden can there be seen in mid-winter a more beautiful display of zonal Pelargoniums in flower than Mr. Salter has at Woodhatch, Reigate. His collection comprises about thirty varieties and about 100 plants. It is, indeed, a striking sight to enter a house full of these lovely flowers in the dull season of the year, and find such a wealth of colour and beauty. When at Woodhatch on the 10th inst. I found in a propagating house small pots, each filled with cuttings, some 250 in all, taken from the plants that had been cut down at the end of

February, as is the rule each year, the house being then wanted for herbaceous Calceolarias. These cuttings soon root, then are shifted singly into 3-inch pots, from those later direct into 6-inch pots, in which they remain during summer, and bloom so profusely all the winter. When well rooted in their flowering pots, being kept freely pinched, they are stood outdoors on an ash floor in full sunshine, where the wood hardens, and are taken in at Michaelmas. They then bloom in rich profusion for fully five months.—A. D.

Daffodils disappearing.—"North Cotswold's" bulbs may be affected, as many of mine were some years ago, by the grub of the Narcissus fly. The bulbs if taken up in autumn have no roots, and appear to be rotten. On cutting them in two or squeezing them a good-sized white grub is found. This grub turns into a chrysalis in June, or late in May becomes a two-winged fly, rather like a small bumble-bee, which lays eggs on the leaves of Daffodils. These become grubs, and live in the bulb until the flies hatch out. I killed eighteen last summer with a butterfly net; the year before I killed twenty-seven. They are easily seen and heard, as they make an unusual sound when flying. Catching the flies in a net and taking up and examining the bulbs in autumn are the only means to cure this pest, and it takes years.—E. W., *Stackallan, Navan, County Meath.*

TWENTIETH CENTURY SWEET PEAS.

VISITORS to flower shows cannot fail to have noticed how popular and how numerous are exhibits of Sweet Peas. For ordinary garden and decorative purposes also this flower is a great favourite; indeed, I believe it to be an established fact that with both peer and peasant the Sweet Pea is the most popular of all annuals. This can be attributed to several reasons. Its ease of culture, its freeness in blooming, and its great beauty appeal to all. I think, however, that much of its popularity is due to the fact that such vast strides are being made in improving it. Of other florists' flowers we are constantly receiving novelties, but no flower is being so rapidly improved as is the Sweet Pea. If we take the twelve finest varieties we find that five-sixths have been introduced during the present century. We may say, then, that to study twentieth century Sweet Peas is to study the best Sweet Peas.

If we look to the source of these novelties our eyes must turn towards Wem, where Henry Eckford so skilfully directs his energy to the beautifying of the world's gardens. Almost all our finest Sweet Peas hail from the grounds of this veteran. Indeed, although a few good varieties have come from other sources, yet the great excellence of those raised by Mr. Eckford is so pronounced that even amongst trade rivals he is acknowledged to be the Sweet Pea king.

It is my intention to make a few remarks about those varieties which have been introduced from the year 1901 onwards. The set of novelties distributed in 1901 has become very popular. The variety Miss Willmott is too well known to invite much comment. There is no larger Sweet Pea, and its lovely deep orange-pink colour and fine shape make it one of the most beautiful. For exhibition this is the most popular of all varieties. The Hon. Mrs. E. Kenyon is also a great favourite. Besides being the largest, it is also the nearest approach to yellow of all the cream Sweet Peas. *Coccinea* has not been grown so much as have the two aforementioned varieties. This is due to the fact that its size is only moderate. I think, however, that all deficiencies in this respect are amply covered by its other virtues. Its shape is almost faultless, and its substance is excellent. In its colour, however, lies its great merit, for it

is the first and only cerise Sweet Pea. I may say that its habit, although vigorous, is also dwarf. Knowing the tallness of modern varieties, one may consider this to be a great point in its favour. Judging from the fact that no other Sweet Pea is anything like it in colour, one may safely prophesy that as a seed parent it will play an important part in the further improvement of the Sweet Pea. Meanwhile we must make the most of *Coccinea* itself, for it deserves far greater popularity than it yet enjoys. Although not comparable with the other three varieties, George Gordon and Lady M. Ormsby-Gore are also fine flowers.

In 1902, Jeanie Gordon, Lord Rosebery, and Gracie Greenwood were distributed. The former is very beautiful, and is considered to be the best bicoloured Sweet Pea. The shade of rose displayed in its wings is very beautiful, and the size of its flowers and the vigour of its growth make it a very desirable variety. Lord Rosebery is a fine shade of rose, and is almost a self. These merits, combined with its great size and good constitution, make it a serious rival to Prince of Wales. Gracie Greenwood is a very taking mixture of cream and soft rosy pink.

The novelties distributed in 1903 were a splendid set. Dorothy Eckford is the finest of all whites, excelling all rivals in size and purity. Its shape is very good, its growth is strong, and it bears a large quantity of blooms, set three and four on long stout stems. This variety is one of the very finest of all. The same may be said of King Edward VII., the magnificent giant crimson. In shape, size, colour, and, in fact, in all good qualities this Sweet Pea excels. Mrs. Walter Wright is also a giant, its hooded standard gives it a very pleasing effect, and its colour is also beautiful. It may best be described as mauve, but various shades of blue are to be found in it. It may be interesting to note that its colour, when the flower has been open for a few hours, deepens. Personally, I prefer the beautiful shade it assumes when only just open. Agnes Johnston is rose-pink, with cream wings; it is a very pretty flower. The year 1904 saw the distribution of Scarlet Gem. This flower had been so highly spoken of that its partial failure during last year's dry summer was disappointing. In the cooler and moister parts of the country, however, it was seen to great advantage, and the blossoms shown by some Scottish growers prove it to be worthy to rank with the very best. Although its colour is so brilliant it will probably never become very popular, for it will be displaced by some variety less liable to be scorched. Marchioness of Cholmondeley is a valuable addition to the creamy pink section, its great size placing it well above its rivals. Mrs. Knights Smith is a large and beautiful pink flower, but the introduction of Bolton's Pink, Gladys Unwin, and Countess Spencer will cause its cultivation to become less general than would otherwise be the case.

This year we are favoured by the distribution of three very fine varieties. Pride of place must be given to Romolo Piazzani, a great advance in the blue section. Undoubtedly this will be widely grown, for an improvement on existing blue Sweet Peas has for a long time been greatly needed. For this year's exhibitions this variety will be almost indispensable. Black Knight is so well known and so much admired that an improved form of it will be very welcome. Such is Black Michael said to be. I do not think that it has yet been shown in London, but as its raiser, Mr. Eckford, speaks highly of it, we can assume that it is a very desirable variety. This latter remark also applies to David R. Williamson, the new indigo blue Sweet Pea; this should prove very useful, both for exhibition and for ordinary decorative purposes.

The varieties I have hitherto mentioned are already on the market, but, if we may be allowed to anticipate, a word or two might be said of some of the newer varieties. At the 1904 show of the National Sweet Pea

Society a new Pea, Henry Eckford, was shown by the gentleman bearing that name. Words with which to describe it almost fail one. Suffice it if I say that it is a great advance towards that desideratum of all lovers of the Sweet Pea—a yellow variety—and that advance is not from the cream, but from the orange-coloured group. In the same show a variety exhibited as Monarch Improved was much admired. This name describes it very well, and the improvement is great. Queen Alexandra is a Sweet Pea which few Londoners have had the privilege of seeing. That it is an excellent variety will be understood when I say that it resembles Scarlet Gem, except that the imperfections of that variety have been eradicated.

Hitherto I have only considered those varieties which have been introduced by Mr. Eckford. It is true that they include nearly all the advances in colour, and in fact that gentleman has raised at least three-quarters of the finest new Sweet Peas. There are, however, several recent introductions which have been raised by other growers. The most famous, perhaps, are the sensational sports from Prima Donna. This variety sported in the collections of several cultivators. Mr. Cole, gardener to Earl Spencer, fixed his sport and named it Countess Spencer. This variety has itself proved very fickle, and instead of remaining the deep pink it was originally, it has now developed various shades, including deep pink, light pink, orange, and rose. Sports from Prima Donna occurred also in the grounds of Mr. Henry Eckford, and in those of Mr. Unwin of Histon. The latter named his variety Gladys Unwin, and it is said to be perfectly fixed.

Bolton's Pink, from Mr. R. Bolton of Warton, Carnforth, is another excellent novelty. Its great size and beautiful colour and shape will probably cause it to become one of the most popular of all Sweet Peas. Jessie Cuthbertson and Florence Molyneux are good striped or flaked varieties, and both have been raised by the same firm, Dobbie and Co. America has given us several recent novelties; Janet Scott and Dainty are among the finest. The former is a beautiful pink flower, but there are so many varieties of this colour that I do not suppose that it will ever become very popular. Dainty is listed as a Picotee edged variety, but last year, in the writer's garden, it flowered white with pink stains and flushes. In other gardens also I believe that it was rather a disappointment. Golden Rose, too, although highly spoken of, was not seen to great advantage. In my grounds, and in those of most other growers, it flowered as a moderately coloured cream, with a few traces of light pink.

Mrs. Higginson, jun., Flora Norton, and Miss Philbrick are all distinct advances in colour, but their moderate size will not allow them to take high positions in the Sweet Pea world. I believe, however, that as light blue varieties are needed they may prove valuable for crossing with larger sorts. There are many other novelties in Sweet Peas, but I think that I have named all the best. Perhaps Lady Aberdare will prove a good sort; I have not yet, however, seen it. Mr. Breadmore, its raiser, speaks well of it, and as he has been so successful as a grower he should be a capable judge.

Before I conclude I think that I ought to mention the names of a few older varieties which still hold their own—America, Prince of Wales, Lady Grisel Hamilton (still the finest lavender Sweet Pea), Black Knight, Othello, Triumph, and Prince Edward of York are all very fine. Navy Blue, Duke of Westminster, Duchess of Sutherland, Gorgeous, Lottie Eckford, Princess of Wales, and Salopian are excellent. We trust, however, that those which have not yet been improved upon will soon be surpassed, for, greatly as we love many of these old friends, we must not be slow to recognise the value of real improvements upon them; indeed, "Progress" must always be the watchword of Sweet Pea lovers. G. F. DRAYSON.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, W.C.

VIOLET MME. PETHERS.

From Charles Hill, Farnham, the Hon. Miss Dundas sends flowers of a Violet called Mme. Pethers. They are a good blue, and double. Miss Dundas writes: "Some years ago a friend of mine was travelling on the Continent, and purchased a small pot of Violets from a nursery of which Mme. Pethers was the proprietress. Mme. Pethers said it was an improved strain of the old Neapolitan, but gave no name with it. Hence we named it Mme. Pethers."

PERSIAN CYCLAMEN FLOWERS.

Messrs. Webb and Sons, Wordsley, Stourbridge, send flowers of their beautiful strain of Persian Cyclamen, the colours clear and pure. The most charming were Mont Blanc, a flower of much substance, white, with crimson base; Rose Queen, rose; and Vesuvius, crimson.

IRIS HISTRIOIDES MAJOR.

Mr. Brown sends flowers of this beautiful Iris, with the following note: "A few flowers of *Iris histrioides major* for your table. I was much interested in reading the note about it by Mr. G. Reuthe in THE GARDEN. They have now been out for ten days and are very hardy, increasing fast, and growing readily from seed; in fact, I find these Irises among the best of early spring flowers."

VIOLETS AND SPRING FLOWERS.

A delightful contribution of flowers comes from Miss Stuart, Wootton House, near Boar's Hill, Oxford. The Violets filled the room with their fragrance, and we noticed amongst other things the Winter Heath (*Erica carnea*), *Hepaticas*, particularly the double blue, and the Lenten Roses. We thank our correspondent heartily for so welcome a gathering of the sweetest of spring flowers—the Violet. With the flowers came the following note: "I have just been getting you some Violets from the garden and a few oddments, all from the open, I need hardly say, I feel sure, they will be appreciated on 'The Table.' It is so delightful to have fragrant Violets, after those I saw a few days ago in London. Of course, I know the *Hepaticas* are 'going off,' with the exception of the double blue, but I send them as they look so spring-like. The *Hellebore* stalks I have scraped on purpose, so that they may last a few days in water, the best way of preserving them."

VEITCH'S BROWN GLOBE ONION.

At a time when so much is heard of the Onion crop and its importance in the economy of the kitchen, it is pleasant to receive splendid samples from Mr. J. G. Watson, Dilhorne Hall Gardens, as clean and firm as any we have seen of this excellent variety. Our correspondent also kindly sends the following instructive note: "The Onions I send are the result of raising the seed under glass to the usual practice of sowing out of doors. The seed was sown eight months ago

(Mr. Watson's letter is dated March 3). My experience is that spring Onions have been a complete failure for years. I now raise them in boxes under glass and with excellent results. Sow in gentle heat about the second week in February, using spent Mushroom-bed manure as a drainage, with a covering of turf or loam. As soon as the young plants are about 1 inch high remove them to a cold frame until they are thoroughly hardened off. I transplant from the seed boxes to the permanent quarters about the middle of April usually to a place that has been occupied with Celery. Onions sown on the same ground as those planted from the boxes were a complete failure, thus showing the wisdom of raising the seed under glass. I harvested last October about 120 stone of Onions that were raised in boxes under glass. This variety keeps well until the late spring."

SOME BEAUTIFUL TREE CARNATIONS.

A beautiful gathering of Carnations comes from Mr. E. Guile, The Gardens, Shortgrove, Newport, Essex, who mentions that, with the exception of the variety Duchess of Portland, they are of American origin. The varieties were conspicuous for the large size of the flowers, without coarseness, a sweet Clove-like fragrance, and absence of splitting. Duchess of Portland variety is a soft pink, a Carnation of great beauty; Marquis de Brabant, a clear cherry pink; Prosperity, pink and white, a very distinct and charming flower, with quite a fringed look, a type we should rejoice to see more of in our houses; Dazzler, clear scarlet; President Roosevelt, a beautiful clove colour; and Purity, white, a flower of great charm, and one that deserves wide cultivation.

VIOLETS FROM CUMBERLAND.

"Cumberland" sends from Penrith exceptionally fine flowers of double Violets, with the following interesting note: "The plants were grown in the summer in soil to which sulphate of iron was forked in previously. I think this deepens the colour of the flowers. Another year I intend adding the sulphate to the soil in the frames as well as in the open garden."

ARUM LILY FREAK.

"C. J." sends from East York a double-spated Arum Lily, to know whether this is an unusual occurrence. This is not so. It is, indeed, quite common. Our correspondent remarks: "No doubt it will be interesting to your readers to know that the plant is carrying six good spathes, and is 5 feet 6 inches high."

CHRYSANTHEMUMS.

SEASONABLE NOTES.

FROM now until the second week in April the majority of the plants being cultivated for specimen flowers should be ready for transferring into 5-inch and 6-inch pots. Assuming that all has gone well with the plants, these should now be well rooted in 3-inch pots and be strong and sturdy. As I have often pointed out, to attain to perfection in this, from the moment the cuttings are inserted till the blooms are perfected the utmost care and observation must be insisted on if one wishes to excel either for one's own satisfaction for home decoration or in competition on the exhibition table. Much more depends on the foundation in building up the plants in their early stages of growth than many suppose, and should they receive a severe check at this season of the year from any cause whatever one cannot reasonably expect to achieve success.

THE COMPOST.—Every care should be taken to procure the very best available, and have it in

readiness some days before it is actually used. If possible prepare it in an open shed, and turn and mix several times before potting. Care should be taken not to use it in too wet or dry a condition, but choose the happy medium. Good fibrous loam of a medium texture which was cut and stacked last autumn should form the chief ingredient, and pull it into small pieces with the hands. If this is inclined to be somewhat heavy it may be lightened by adding sufficient good leaf-soil or old Mushroom bed manure, and to render it porous add some finely-powdered charcoal and old mortar rubble, coarse silver, clean road, or river sand. To every four bushels apply a 6-inch potful each of bone-meal and Clay's Fertilizer. Both the pots and crocks should be thoroughly cleansed, and if the pots are new well soak and dry them before using.

DRAINAGE.—This is unquestionably one of the most important points in relation to successful Chrysanthemum culture in all stages, as without a clear and uninterrupted waterway the plants will not grow satisfactorily. The crocks should be carefully placed in the pots, gradually building up, beginning with the coarser ones at the bottom and finishing off with quite fine ones. Over these should be placed a good layer of clean fibre taken from the loam, and, providing worms are excluded, as they must certainly should be, the drainage ought to be as perfect when the plants are turned out as the day it was arranged. This applies to all plant culture more or less, but it is not practised nearly so much as it should be.

NUMBER OF PLANTS TO GROW.—This will, of course, much depend on circumstances, both as regards facilities when the time comes round for accommodating them under glass and labour at command during the summer months. Let me point out that 200 plants well grown and attended to will give infinitely more satisfaction than double the quantity, which for various reasons cannot be looked after. Up to this time almost anyone with a reasonable amount of glass can strike and grow many more than will be required, and the best and most promising now should be selected and grown on. When it is one's ambition to enter into the forthcoming contests it will be far better to pin one's faith to and cultivate a good number of the most promising varieties rather than attempt to grow too many. A list should be prepared and kept for future guidance, as this will save a vast amount of care and anxiety later.

POTTING.—Before beginning carefully examine each plant, and if dry thoroughly water. With everything in readiness the potting should be commenced; disturb the roots as little as possible, removing only the largest of the crocks, pot firmly, sprinkling a little of the finest soil over the surface; see that each plant is correctly labelled and neatly staked. Damp over the pots and soil before leaving the potting-shed, and arrange in cold frames on a good bed of fine cinder ashes, or on battens. Choose an open site facing south; no harm will accrue if placed pot thick for a short time. Very little air will be needed for a few days, but spray over the foliage two or three times a day in bright weather, and offer every inducement to encourage the plants to recover from the slight check as speedily as possible. After the third or fourth day the whole should be thoroughly watered in filling up the pots at least three times. As soon as active growth begins give air more freely, taking care to avoid cold cutting winds as much as possible, and tilt the lights in the opposite direction to which the wind is blowing. By this time more room should be given them, sufficient to allow each to be examined thoroughly. The points of the growths should be dusted with tobacco powder every ten days during the evening and well washed out with the syringe the following morning with tepid water. This will render them safe against attacks of aphids. On mild, balmy days remove the lights entirely, but always make sure against frost at night.

SPECIMEN PLANTS.—To obtain large, well-developed specimens it is essential that the foundation be formed as early in the year as possible by growing on in a genial temperature.

STOPPING AND TYING OUT THE YOUNG SHOOTS TO FORM A GOOD BASE.—Fortunately the old way of tying down the shoots almost as flat as a pancake is practically obsolete, nevertheless a certain amount of training is necessary in the early stages to ensure good plants, after which allow the plants to develop naturally. Many of the newer varieties of the Japanese make delightful bushes, especially those which possess a natural tendency to branch out freely. Decide on a definite number of shoots, and get these selected as early in the season as possible, and the finer will be the individual blooms.

POMPON AND DECORATIVE VARIETIES should now be potted off singly into 3-inch pots, if not already done. The leading growth should be pinched and the plants grown on in cold frames, shifting into 5-inch pots when plenty of roots have been made.

EARLY-FLOWERING BORDER VARIETIES.—These ought now to be thoroughly hardened, exposing

results in every way are much more pleasing than when tied up to a single bunch as they far too frequently are. In my opinion there is a great future for this charming section of the Chrysanthemum. E. BECKETT.

THE FLOWER GARDEN.

THE DEVELOPMENT OF THE AURICULA.

IN a recent number of THE GARDEN the Rev. F. D. Horner took me somewhat sharply to task for having, as he indicated, advocated some lines of change in the Auricula, calculated, as he appeared to think, to do discredit to the present sections into which the florists' Auriculas are divided. I can assure him I had no desire in any way to interfere in the slightest degree with the traditional character of the green, grey, and white edges, and selfs. No one welcomes more readily than I do a new introduction of value; and I am as firm an upholder of the absolute

Among the fancy varieties which Mr. Douglas is in the habit of staging there are some worthy of wider culture, and they might be found under the head of a novelty class. Some once-popular florists' flowers have been saved from practical extinction by the introduction of new types. The introduction of the fancy Pansy gave a new lease of existence to the English show Pansy, and now it dominates. The introduction of the Japanese Chrysanthemum did the same for the incurved Chrysanthemum, and it is now paramount for all purposes. The show Dahlia has been saved by the advent of the Cactus type.

All these three introductions, to whom floriculture owes so much, were frowned upon by the florists, but they won their way by reason of their diversity of character. I want to see something of the same take place in the case of the Auricula. It is capable of considerable development in the direction of striped, yellow, and white self flowers, doubles, &c. The strict florist shall be left in full possession of what he has, but some wider development may be, and I think is, necessary to meet a larger circle of lovers of the Auricula. R. DEAN.

SNOWDROPS IN KELSO.

THE illustration shows Snowdrops and some very old Yew trees at Mellerstain, Kelso, N.B. The Snowdrops were not fully out when the photographs were taken, but when the flowers are at their best they present a wonderful sight.

GIANT ANTIRRHINUMS.

THE improvements effected in most herbaceous plants have been within the last twenty years of a very marked character, and in the majority of cases they are represented in gardens by the best types. This, however, is hardly the case with the giant Snapdragons, which have not yet received the amount of attention they deserve. Until recently they were quite underrated in catalogues and advertisements, and when my first lot of seed came to hand I was told that with good cultivation they would grow more than 3 feet high. As a matter of fact there were few of the first spikes that did not go over 5 feet, while in size and colouring of individual flowers they were exceptionally fine. The ordinary Snapdragon, as everyone knows, will flourish as well in an old wall or a heap of brick rubbish as in the border, but to have the giant forms at their best requires more liberal treatment. Seed procured from any good firm making a speciality of hardy plants may be sown thinly in pans or boxes in June.

For pricking out the seedlings I like a frame with a hard ash bottom, for if the plants are to remain in these quarters through the winter there is not then the chance, when lifting, of finding a lot of long, straggling roots deep down in the soil. Four inches or 5 inches of soil on the top of the ashes will be sufficient, and it may consist of equal parts of ordinary light garden mould and road scrapings from a well-prepared heap.

A slight protection may be necessary in very severe weather, as some of the varieties are not quite hardy. Beds or borders destined for their reception may be prepared as for ordinary summer plants, except that instead of manure a surface-dressing of, say, 3 inches thick of old Cucumber or Melon soil may be forked in. Stake the central spike to prevent breaking off by high wind or heavy rains, and remove it when it is showing a fair proportion of seed-pods to allow for the development of side spikes and a second display. Cuttings of this giant strain strike readily, but as the colours come true from seed the latter is probably the better way to propagate, especially as the seedlings make the stronger plants.

Claremont.

E. BURRELL.



SNOWDROPS AND OLD YEW TREES AT MELLERSTAIN, KELSO, N.B.

(From a photograph sent by Lady Binning.)

the plants as much as possible on all favourable occasions. Stop the shoots to ensure good bushy plants for putting out in their permanent positions early next month. When well grown few flowering plants during late autumn are more attractive or more appreciated than these, as when most of the summer-flowering plants are on the wane these fill a blank which few other things can do. They make charming beds or ribbon borders, and are equally valuable for dotting about in the shrubberies and herbaceous borders. The positions in which they are intended to be planted should now be thoroughly prepared, working in a good quantity of farmyard manure, and deeply digging, or, what is still better, trenching the same. The surface should be in a rough and lumpy condition, leaving it to the weather to sweeten and pulverise by the time of planting. If a fine day is chosen little difficulty will be experienced in bringing this to a fine tilth. When putting out the plants do not cramp them for the want of room, but allow sufficient so that each may be staked out much in the same way as a specimen plant, as by so doing their beauty is much enhanced, and the

individuality of these various types as he is himself. While writing, I had in my mind the complaints of Dr. Bonavia and others, who greatly admire the Auricula, to the effect that for the florist to taboo everything outside of these classes, however good it may be in itself, restricts the development of the flower. It was to meet this objection that I made mention of the charming striped sport in the possession of Mr. Horner, a variety which I am sure would be welcomed by many, if it could be fixed in character and propagated to an extent which would justify its being distributed. I am quite content that Mr. Horner and the bulk of Auricula growers should cleave to their present types; but after all it is to the general public that the National Auricula Society is dependent for a considerable measure of support, and the general public likes to have its say nowadays. The southern section of the National Auricula Society needs increased support, for the schedule of prizes of the present year shows a reduction of the value of first prizes owing to insufficient means. A class or two for novelties in Auriculas might be framed.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

DESTROYING FIELD MICE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—For the destruction of field mice I suggest the following: Over their holes place pieces of paper, slightly pushing some of it in, cover the hole with sulphur, and light the paper. Use a pair of house bellows and drive the fumes into the holes. A calm day should be chosen. On my lawn I had two patches much disfigured with twenty to thirty holes in as many feet. About two months ago I successfully tried the above. In a border where there are flowers I should not like to try it, but the grass is not in the least injured. I closed the holes with pieces of turf after the smoking, and now there are few to be seen. These I intend sulphuring again.

Glastonbury.

J. A. T.

IPOMEEA RUBRO-CÆRULEA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am exceedingly glad that more interest is aroused in the most beautiful of our blue flowers, the *Ipomœa rubro-cærulea*. Such a display of blue is most striking and rarely seen. My experience is that it is not difficult to grow, and the seed germinates well in light soil in a warm temperature, a stove heat, which some growers give it, being, I think, unnecessary. The one shown in the photograph was raised in a warm vinery, and potted on, as soon as the little plants could be handled, into 2½-inch pots, gradually repotting until 7-inch pots were used. The soil for the final potting should be richer than before, mixing some well-rotted manure with the former compost. Give the plants when quite small a thin stick to cling to, as they grow more rapidly, and if to remain in pots place them



IPOMEEA RUBRO-CÆRULEA.

after the last potting where they are intended to stay, and stretch fine string up to a height of 12 feet or 13 feet from the ground. Keep well watered and syringed, and give weak liquid manure once or twice a week. This will produce an abundance of blossom, and, though the individual flower lasts but one day, they follow each other in such quick succession that you scarcely

notice they are new each day. It is a lovely greenhouse climber, framing a window, or covering a blank wall in a south or south-east position (the one in the photograph was by the side of a drawing-room window facing east). Also it is very charming out of doors, and in our sunny Torquay thrives and is happy in a warm sheltered place against a wall or trellis if in full sun, south being the best aspect. They should be grown as for pots, but when 18 inches to 2 feet high gradually harden them off well, and then make a good bed where they are to be planted. Add old rotten manure and leaf-mould to the soil if that is good, or, if not, replacing it with loam, mixing well together. Turn the plants carefully out of their pots and put in the hole made for them, fill in, and water well. Water, syringe, and shade them until quite established. Never let them want for water, and if the weather is very dry a good soaking and mulch will keep them vigorous. The planting outside here may be done the end of May or early in June. Group the plants together to form a mass of colour. I have been much interested in the letters written about this climber, and hope to have a good show of them this year myself; and also to see many more grow them outside as well as under glass. They are, I fancy, hardier than we think.

M. MITCHELL, F.R.H.S.

Alberbury Gardens, Torquay.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I note that Mr. J. S. Higgins, on page 129, states that he experiences difficulty in raising this plant from seed to a height of 2 feet. Possibly much depends upon the seeds, for in the course of three years, during which time I have grown this *Ipomœa* for planting out against a south wall in the open, the seeds have always germinated well, and the plants suffered no check either while under glass or when planted out. Mr. Higgins advocates sowing the seed at the end of February. This may be good advice if the plants are to be grown entirely under glass, but, if they are intended to be eventually grown in the open air, the date is, I fancy, considerably too early, and fully two months or more in advance of the time at which I sow, as I never plant out before the end of June, when the seedlings are about 2 feet in height and set with their first flower-buds.

S. W. FITZHERBERT.

FLOWERING OF CHRISTMAS ROSES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I observe in THE GARDEN of the 25th ult. that a correspondent mentions Christmas Roses being in flower a fortnight before Christmas Day in a cold frame. It may interest your readers to know that we grow *Helleborus niger altifolius* in the open ground on an eastern border here, in the north of Ireland, and have done so for several years. They began to flower last autumn in the third week in October, perfectly pure white, and very large, and there are at this moment many blossoms on the plants, although, of course, at this time of the year they are not so pure in colour. We divide the clumps every second spring as soon as they are out of flower, and there are now seventy plants on the eastern border and three or four more on a rock garden at some little distance. On one of the latter I counted twenty-one blossoms recently, and a flower which I gathered at random measures 4 inches across.

MRS. MONTGOMERY.

Blessingbourne, Fivemiletown, County Tyrone.

A BEAUTIFUL AZALEA (A. OBTUSA).

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This is an extremely useful plant. It flowers a month or even more in advance of the general batch of Indian varieties. Introduced into heat in January or February the flowers soon begin to open, and continue to do so over a long period.

Well grown plants are often so thickly covered with flowers that little foliage can be seen. The flowers are small, only about an inch across; the colour a shade of red, perhaps best described as a dark brick-red. The growth is dense and freely branched. Half a dozen plants in No. 4 house, Kew, are a mass of flower. Dotted amongst *Eupatorium riparium* they are very effective.



RHODODENDRON INDICUM OBTUSA (AZALEA OBTUSA ALBA) AT KEW.

The white variety album illustrated is even more useful. A habit of this plant to revert to the type and produce red or streaked flowers does not fail to attract the attention of visitors. When grown outside they are often damaged by late spring frosts, except in the extreme south and west of England.

A. O.

ENGLISH v. AMERICAN APPLES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have read the correspondence in relation to above, and I certainly think that we have no English or Irish Apples to compare with the Americans. I sincerely wish we had, but whether it is the United States climate which produces such delightful Apples and fruit or not, yet I am certain, notwithstanding the excellent varieties which we grow here for dessert and kitchen use, none of them can compare at all with the American product; we simply cannot compete with them in quality.

WALTER SMYTH.

Faunmore, Holywood, County Down.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Stress of work has unfortunately hitherto prevented me from answering Mr. Bunyard's letter. Much that he says *re* the variation of the ripening season according to latitude where fruit is grown is entirely true, as any fruit grower must know. But does not Mr. Bunyard give his case away rather badly when he writes "Many varieties of Apples are generally acknowledged to be of decorative value only? Are these not in season as long as they preserve this character?" Well, if such Apples are exhibited in special classes reserved for decorative purposes only, no doubt the contention is just; but surely if a collection is sent up to the Royal Horticultural Society in the ordinary way the members of the fruit committee should not award their highest commendation to the exhibitor if aware that his exhibit included varieties that at the date of showing were tasteless and insipid, and

therefore quite unsuited to the requirements of the kitchen or the dessert table.

Cullompton, Devon. H. EUGENE TRACEY.

REFUSE OF ACETYLENE GAS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Referring to the enquiry of Mr. H. P. Powel in *THE GARDEN* of the 18th ult., page 110, respecting the use of the refuse from carbide of calcium, I may mention that at both of our carbide of calcium factories we have made considerable use of this refuse for garden purposes. We find that, used upon nearly any description of soil, it increases the weight of the crop and has a remarkable freedom from slugs. In my own garden I am now using it also for spraying Roses and shrubs, utilising for this purpose unslaked carbide of calcium in a very ingenious apparatus put upon the market by a French firm. The gas evolved by the carbide sets up sufficient pressure in the apparatus to produce a very efficient spray. We have also supplied fairly large quantities of dust carbide for dusting on hops. The experiments carried out in this direction have met with great success, but the carbide dust should be put on in dry weather. If put on when the leaves are wet, the heat set up by the rapid slaking of the carbide damages the plant.

Where residue from acetylene generators is used it should not be put on beds too thickly, but should be spread thinly over the surface. As you correctly remark, the chief constituent of this residue is lime, and it is therefore not so useful on a limestone soil as on others. As to the impurities, the chief one is phosphorus, which naturally is a help rather than the reverse for manuring purposes. I shall be glad to give any particulars any of your readers may desire.

For the Albion Products Company, Limited,
CHARLES BINGHAM,
Managing Director.
11, Queen Victoria Street, London.

WINTER GREENS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It is probable that the harm done to winter Greens, referred to by "West Middlesex," is due to fogs more than to any other cause. Outside the fog area winter Greens generally are in fine fresh condition. Only a few days since, in passing along the Great Eastern Railway to Marks Tey, Essex, I greatly admired the almost luxuriant appearance of breadths of greenstuffs on each side, showing that even in that flat, wind-swept county frosts had done no harm. West Middlesex, both because it is on the west side of London, and lies rather low, invariably suffers from London fogs, as these prevail most when cold easterly winds also prevail, though very sluggish ones, hence the drift of the smoke and sulphur-laden fog in its worst form in the western direction. In spite of the fact that Essex lies on the east of the Metropolis it does seem to possess some advantages over West Middlesex, as whilst the latter, for getting produce to market and manure home is much nearer, the former has a purer and much less fog-laden atmosphere. A. D.

THE BULLFINCH IN THE GARDEN.

(Letters in its Defence.)

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Both as a gardener and a bird-lover I was much interested in the article signed "E. K. R." on the bullfinch in the issue of *THE GARDEN* of the 18th ult. It may, perhaps, interest your correspondent to know that my experience here tends to show that birds, when they have plenty of natural wild country and are undisturbed, do not trouble the gardener much. We are situated on the edge of the New Forest, and, with the

exception of the gardens, this estate is allowed to remain in a perfectly wild condition. Birds abound and are unmolested, the bullfinch amongst them, and, although we grow a fair quantity of fruit, including Gooseberries, I have not yet in the course of three years found them trouble the buds at all. Chaffinches, too, are abundant, and we find it necessary to protect the earliest seed sowings, but later, as food becomes more plentiful, they do not trouble. We also protect the small fruits with netting against the attacks of blackbirds and thrushes, but through the permanent wire netting at the sides small birds are able to go in and out without inflicting any damage. The balance is well kept, for hawks, stoats, and weasels, too, are abundant.

Formerly I was for many years in suburban London, and was much more troubled. I think there is no more destructive and mischievous bird than the town sparrow, also other birds, which take up their quarters in the gardens, acquire a taste for things which, when living under natural conditions, they leave alone. The sparrow is present here, too, but not in large numbers, and seems to be a different bird. The jays are our worst enemies, and give a lot of trouble when the Peas are ready. I was very much disgusted once, when going over a very large garden, to see the head gardener shooting tomtits. They are encouraged here and fed during the winter, and are very plentiful. The only damage I have known them do is to peck holes in a few Peas. The few they destroyed were not missed.

Southampton.

F. MARK.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Referring to your recent article, "The Bullfinch in the Garden," I had a nest of bullfinches in my garden last year for the first time to my knowledge. It was strictly preserved, and yet I had a better crop of fruit than I have ever had before. I have also kept these birds practically all my life, and bred them in an outdoor aviary, and I know that nothing gives a bullfinch greater pleasure and good than a folded Rose leaf in which lies hidden a fat, green caterpillar; in fact, so fond of these caterpillars are the birds that they will come and take these infested Rose leaves from one's hand when they will refuse to do so for any other food, even Hempseed.

N. B. ROBERTS.

The Cottage, West Retford, Notts.

ENGLISH NAMES FOR PLANTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It always seems to me that the desire for English names to plants comes to those who are not greatly interested in gardening. In itself the desire may be natural, but its fulfilment is practically impossible owing to the number of new plants continually coming from the ends of the world. A. Smallpeice seems to me to show the right way, viz., to adapt, as far as possible, the Latin names to current use. We have done so in so many cases (as in Dahlia, Camellia, Azalea, and others) as to show that it is by no means impossible. Some, no doubt, are beyond us. What is to be made of Tritoma or Kniphofia, for example? We call them variously "Red-hot Pokers," "Flame Flowers," or "Torch Lilies." Such confusion ought to be remedied by agreement, as far as possible. Out of the three I should vote for Torch Lilies. Red-hot Pokers is trivial, Flame Flower indeterminate, but Torch Lily does, I think, give an idea of what is meant. A common consent might be obtained by asking the opinions of your readers in such cases where several English names occur. Where new plants are named in English it is much to be desired that short names should be chosen and agreed upon. Take the Chionodoxas, for instance. I have always thought Snow Gems would be better than Glory of the Snow, but I am afraid it is too late to try to alter it now. Where Latin

names are euphonious I should certainly try to get them anglicised, and would speak of Crocuses and not Croci. Crocus is, to all intents and purposes, an English word now.

T. J. WEAVER.

WHEN ARE APPLES OUT OF SEASON?

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The notes on page 144 will be read with interest by many fruit-growers. Mr. Engleheart, I think, touches the real fact when he states that with regard to the late fruits our climate, in a great measure, is answerable for the absence of flavour. We have plenty of new varieties, but these are without the keeping qualities required, and Mr. Engleheart says scarcely anything has yet been done in the way of intelligent breeding. Here, then, is an opening for the Maidstone firm, who should certainly give the best results, but I fear, even in favoured Kent, this is impossible, as the climate cannot compare with that of America. I fear Mr. Tracy (page 144), who lives in Devon, did not see the fruits in question. A finer collection I have never seen, and having somewhat similar ideas as the writer as to the seasons of different varieties, I carefully examined several dishes, and was surprised to find the fruits so sound and plump. I did not see a single soft or shrivelled fruit.

G. W. S.

TREES AND SHRUBS.

ARUNDINARIA NOBILIS.

FOR some years past Bamboo lovers have been looking forward with fear to the flowering of this *Arundinaria*. I do not know where the thirty years' theory had its origin; but I am afraid we shall ere long have cause to think that it is based on too sound lines. Soon after New Year my father said he thought that some of the culms had an unusual appearance, which he suspected meant flowering; this, however, I considered arose from other causes. But recently I carefully examined the suspected culms, and am sorry to say that on close inspection found signs of flowers. About thirty years since we had a quantity of this *Arundinaria*, some old-established plants, others three and four years old, some even only one year, and every plant of the whole stock flowered and died. With us it failed to reproduce itself by seed; but with Captain Carré of Valnord, Guernsey, a few seedlings showed, and were carefully nursed, and from that source we obtained a fresh stock of this noted plant.

Arundinaria Simoni started flowering with us for the first time two years ago, is still doing so, and will, I fancy, continue year by year till every plant has flowered. The condition of our suspected plants is at present not sufficiently developed to convince me that my fears are well grounded; but it would be interesting to know how other plants are looking, particularly the Menabilly stock.

H. C. SMITH.

Caledonia Nursery, Guernsey.

THE WINTER SWEET.

(CHIMONANTHUS FRAGRANS.)

THIS is one of our most beautiful hardy winter-flowering plants, possessing an uncommonly delicious scent of its own. Its wax-like buds begin opening at the end of the year, expanding delightfully until March. Its sprays of bloom are capital when cut for indoor decoration, and will remain fresh for a

considerable time, giving off a pleasing perfume. This plant amply repays for a little extra care and attention, rewarding one thereby with numerous flowering growths fully 3 feet long, and literally covered with blooms. To attain this object, after flowering time is over—say, the middle of March—all weak and old worthless wood should be cut hard back, thus promoting vigorous growths, which should be trained fan-shaped on a wall, laying them in evenly from 4 inches to 6 inches apart. These shoots eventually become covered with blooms. As the branches lengthen they will throw out lateral growths towards the base. Those which are not wanted for laying in should be pinched during the summer, and so form flowering spurs similar to Plum trees, for example. It should be grown for its foliage alone, so distinct and handsome is it when in vigorous health. The colouring is a lovely golden-yellow in autumn; during the dull winter months its fragrant flowers appear freely. The plant does remarkably well here on a wall facing east. Any good garden soil suits it.

Swanmore Gardens. GEORGE ELLWOOD.

NOTES ON HARDY PLANTS.

A RARE HARDY PLANT.

SHORTIA UNIFLORA.

THIS beautiful Japanese plant was for some years considered to be practically identical with the Carolina *Shortia galacifolia*. Horticulture having been the means of bringing the American and Japanese plants together in a living condition, it is found that here, East and West, provide the cultivator with two quite distinct (from a garden point of view) species of *Shortia*. Both are extremely pretty plants, with persistent leaves, but more attention just now is naturally being paid to *S. uniflora* owing to its present scarcity in this country. It may be mentioned here that the existence of the Japanese *Shortia* played an important part in the discovery of the long-lost Carolina *Shortia galacifolia*, the examination of dried plants of the former confirming the late Dr. Asa Gray's belief that *S. galacifolia*, at that time only represented in Europe by a solitary dried leaf and fruit, still existed. There it was ultimately discovered by a lad near Marion, McDowell Country, North Carolina, in May, 1887, growing some distance away from the spot where Michaux, a hundred years or so previously, had gathered the above-mentioned leaf and fruit—the scanty material on which the genus was described. A full account of the history of the Carolina *Shortia* is given in the *Botanical Magazine*, 7082.

At Edinburgh the flowers of *S. uniflora* appear in March, fully a month before those of *S. galacifolia*. Other differences, too, are noticeable; the flowers of *S. uniflora* are larger than those of its American cousin, and are not white, but suffused with a blush tint varying in intensity, while the leaves are somewhat smaller.

Shortia uniflora was imported in very small quantity in the latter years of the last century, but who first

grew and flowered it I do not know. For several years it was offered in catalogues at a very moderate figure, but on enquiring the plants were not forthcoming. Recently the Japanese form of *Pyrola rotundifolia* was distributed as *Shortia uniflora*, a curious mistake, seeing that the remains of the many-flowered spikes were on the plants.

Mr. Hindmarsh, a most successful grower of *Shortia uniflora*, records his experience with it in the *Gardeners' Chronicle*, Vol. XXXI., where an illustration is also given. The photographs that he has been so good as to show me show that this beautiful plant is quite happy at Alnwick. At the Royal Botanic Garden, Edinburgh, it thrives with a full northern exposure in a peat bed. Close by scores of *Shortia galacifolia*, planted amidst *Ericas*, are very beautiful both in flower and leaf. *Schizocodon soldanelloides* is sometimes called the Japanese *Shortia*, but there is surely no occasion to mix the names up in this way.

D. S. FISH.

Royal Botanic Garden, Edinburgh.

OSTROWSKIA MAGNIFICA.

It is pleasant to read of the success of others with this plant if one cannot grow it one's self. Calling on Mr. J. C. House, at Westbury-on-Trym, at the beginning of last month, I noted strong growths 4 inches long from his plant on a raised mound of soil at the foot of a low stone wall with a southern exposure. The growth had every appearance of success. No protection was given to the plant. The deep red "braishey" soil seemed to suit it in every way. Mr. House seemed quite happy about his plant, saying that when once established no difficulty is experienced in obtaining success.

E. MOLYNEUX.

IRIS SIEHEANA.

SINCE the beginning of February this interesting little plant has been producing a succession of flowers on a warm south border. Of almost the same colour as the ground it may easily escape notice, and this is no recommendation. If it were not for its earliness it would have little claim to a place in the garden. It is one of the Juno group from Asia Minor, and one of the several introductions of Herr W. Siehe, after whom it is named; it is also grown under the names of *I. persica magna* and *I. Haussknechti*. The latter name was given to it by the discoverer, but owing to the name being appropriated previously by another member of the same family, it could not stand, therefore the present

name was applied. The leaves are similar to those of *I. persica*, and the flowers are of a curious shade of silver grey with purple falls.

COLOURED PLATE.

PLATE 1271.

EUSTOMA RUSSELLIANUM.

FAR better known to the gardeners of a generation or more ago than it is to those of the present day was this beautiful Gentian Wort, for it was of old regarded as a good test of the cultivator's skill, a consideration not so much taken into account now as it once was. The generic name of *Eustoma* had, however, at that period not come into general use, for to the old-time gardener the plant was, and still is, known as *Lisianthus russellianus*. It is a native of Texas, from whence it was introduced in the early years of the nineteenth century, and named in honour of the Duke of Bedford. Good plants used to figure among the large specimen plants so freely exhibited in the fifties, but, as above stated, it is now comparatively unknown. Still, seed of it can be obtained from most dealers, the supply, I believe, being principally obtained from Germany. A few years ago M. Benary of Erfurt was particularly successful in its culture for seed-producing purposes, the flowers when at their best making a magnificent display, but whether it is still grown there to the same extent I cannot now say. At all events, a packet of seed may now be bought for a shilling, and the present time is a very suitable one to take the culture of this charming plant in hand, for the seed should be sown in the month of April. The soil best suited for this purpose is equal parts of loam, leaf-mould, and sand, the top layer being passed through a sieve with a quarter of an inch mesh. The pot must be clean and well drained, with the roughest portion of the soil placed immediately over the crocks. From its minute character the seed should be covered only with the merest sprinkling of dry sand, when, if a pane of glass is laid

over the top and the whole placed in a structure kept at a temperature of 50° to 60° (or even more during the daytime) the young plants will soon make their appearance, and, directly they can be conveniently handled, must be pricked off either into pots or pans. The same kind of soil will suffice, and, as in sowing the seed, the upper layer should be somewhat finer than the rest, as there is then less danger of injuring the delicate fibres. The next shift will be into small pots, and if they go on well they will, by the middle of August, be



THE RARE AND BEAUTIFUL SHORTIA UNIFLORA.

April 1st, 1905.



sufficiently advanced to be shifted into pots 4 inches or 5 inches in diameter, according to the vigour of the plants. Wintered in a temperature of 50° to 60°, they may be shifted into larger pots about the end of February. Some prefer to put them into pots about 8 inches in diameter, and flower them in these, while others give an intermediate shift, finally putting them into 8-inch or 9-inch pots. As they are very impatient of an excess of moisture, thorough drainage must at all times be ensured, while in winter they need comparatively little water. The compost for the final shift will, of course, require to be coarser than that for the smaller pots, a very suitable mixture being two parts each of good yellow loam and leaf-mould, though some prefer peat instead of this last, and one part each of dried cow manure and coarse silver sand, the whole being thoroughly incorporated together, and in potting pressed down moderately firm. With this treatment one may reasonably look forward to a fine display in the month of August, while the fact that failures are by no means unknown imparts an additional interest to the culture of this striking plant. Though usually treated as a biennial, it has been, by sowing the seed early, sometimes grown as an annual, but in that case the plants did not attain the proportions of those whose season of growth extended over a longer period.

H. P.

ROSE GARDEN.

DOROTHY PERKINS AS A FOUNTAIN ROSE.

ANYONE who planted this Rose when it first appeared will observe, on examining the base of the plants at the present time, quite a number of sucker-like growths just waiting for the warm days to start into growth. It is obvious these growths must either crowd the plant, or some of the older shoots must give way later on to these newcomers. Now, providing ample space is available, there can be no reason why the new growths should not be trained away from the upright support, utilising any other support fancy or taste may indicate. I might suggest a few wooden logs or tree stumps placed on either side of the pillar or arch if admissible, but anything would do to provide a suitable reclining medium for the willowy growths. How delightful these growths appear when studded with sprays of blossom. I am persuaded we obtain more beauty out of our rambler Roses by this loose, fountain-like style of growth than the somewhat severe pyramidal way of training.

I would advise the more frequent planting of this charming Rose for clothing a trellis or for forming a hedge. Many of the varieties of the useful wichuraiana race would often make far prettier screen plants than Ivy. If, however,

we can obtain blossom as well as glistening and almost evergreen foliage I think we are justified in using what is available. P.

NEWLY-POTTED ROSES.

THE importance of a gentle bottom-heat for Roses that have only been potted up a few weeks cannot

that are only procurable from the open ground were potted up in October and then brought under glass early in the year, the pots plunged in a bed of leaves, the plants would bloom in April, and a second growth be obtained by budding time. Although it will not do to rely too much upon the merits of Roses as seen under glass, yet a good rosarian can form a fair estimate of the good points of a variety, and if even one or two sterling novelties were discovered it would enable the amateur to be to the front, especially if the National Rose Society encourages the exhibition of new Roses by amateurs by offering suitable prizes. P.

ROSE ALLIANCE FRANCO-RUSSE.

I HAVE been much surprised that exhibitors who make Tea Roses their special study have not brought this variety into greater prominence. As far as I know it has never been exhibited in a competitive stand, and yet its merits are of no mean order. These are in form, substance, and colour almost perfect. At times the flowers resemble a pale Perle des Jardins, but there is a salmon shade pervading most of them. A deep petal, coming up to a point, is one of its characteristics, and I feel sure it would be a valuable kind for the exhibitor. It would be a splendid idea if the Royal Horticultural Society could see their way to plant such sorts as this at Wisley in order to bring them more under the notice of growers. P.

ROSE JEANNE BUATOIS.

THIS is a Hybrid Tea that has been somewhat overlooked by exhibitors. It produces a splendid flower of much depth and nearly as white as Niphetos. The growth is more compact than that of the old Rose alluded to. The flowers are borne fairly erect, but the variety is not excessively double. P.

NEW AND RARE PLANTS.

TWO NEW LACHENALIAS

LACHENALIAS are among the most showy of greenhouse flowers, and are deservedly popular with professional gardeners. It is a matter for regret that they are not more grown by amateurs. The two new forms illustrated were shown by Mr. J. T. Bennett-Poë, Cheshunt, and by Mr. F. W. Moore, Glasnevin Botanic Garden, Dublin, before the Royal Horticultural Society, on the 28th ult., each receiving an award of merit. Lachenalia Brilliant is very handsome,

with mottled purple stems and large widely-expanded flowers of golden yellow tinged with red. It is a sturdy grower and very free flowering. Lachenalia Jean Roger is tall growing with yellow and green-scarlet-tipped spikes of flowers. It is very showy.



TWO NEW LACHENALIAS: THE ONE ON THE RIGHT IS JEAN ROGER AND THE LEFT BRILLIANT. (Slight reduction.)

be over-estimated; warmth stimulates root action. There is a phase of Rose growing not yet much in vogue, but one which I imagine will extend, and that is to procure the best novelties as they appear and grow them under glass with a view of testing their merits, and also to provide buds of the most desirable. Now if such kinds

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

DO PLANTS WEAR OUT?—This is an interesting question, and the answer must, at any rate in some instances, be given in the affirmative. In a state of Nature the gods grind slowly, but under cultivation progress can only be made or retrogression prevented by continual selection. There are several causes at work which reduce the strength of a race of plants. Overfeeding and overpropagation from cuttings have a tendency to weaken the plants exposed to it, and so let in disease. The Potato may be quoted in favour of the wearing-out theory, and other plants might be named, the Verbena, for instance, as it was grown years ago.

Experimental Work.—The value of this is in proportion to the care in which it is carried out and results noted down in a book kept for that purpose. If all the good work done in the past had been carefully noted our literature would be of greater use to us. Unfortunately, in the past there was too much narrow-mindedness. Many men who discovered any new process looked upon it as a secret not to be divulged for the general good. There were good gardeners in Shakespeare's time, and even earlier, when the monks held sway.

What is to be the Gardening of the Future?—It may be said the future will take care of itself; what we are concerned with is the present, and there is abundant scope for energy and intelligence. We have not yet made the wilderness blossom with the Rose, but the thin end of the wedge is being driven in. Our public bodies are waking up and giving encouragement. Directly or indirectly we draw all our food and clothing from the land, and there is room for better methods of culture, improved implements, and more attention to details, for it is in the small matters that so many failures occur.

Two Pretty Clematises.—Of the many Clematises suitable for cultivating in pots and excellent for the adornment of the greenhouse in February and onwards, none responds more readily to gentle forcing begun in December than the white-flowered single varieties Mrs. Quilter and Miss Bateman. The former has flowers 3 inches in diameter and anthers of a deep shade of purple, and the latter variety slightly larger flowers. Both are free in flowering, and trained on small balloon trellises they form charming objects. Mrs. Quilter was introduced to commerce some twelve years ago.

Bulbs after Flowering.—At this time of the year many amateurs either do not think of the value of bulbs forced for the house or are puzzled as to the best way of disposing of them. May I suggest that all such bulbs after the flower-spikes have faded be treated thus. The old flowers should be cut off and the pots, bowls, &c., consigned to some place such as the tool shed, where they will not be seen. Then water so as to keep them plump, and gradually decrease the amount given. When the leaves turn yellow and die down shake off the old soil and carefully sort Daffodils, Hyacinths, Spireas, Tulips, Scillas, Crocuses, &c. With these uninteresting shrubberies, backs of borders, and grass under trees can be brightened. Such bulbs do excellently and flower well if properly planted. Some good soil should be mixed—loam, cow manure, and leaf-mould. Remove the piece of turf over the proposed hole, take out much of the old soil, and replace with the new. It is as well to give

a layer of sharp sand under each bulb. Well ram the soil round and replace the piece of turf. In the borders, &c., annuals can be sown over the top at once, and will soon cover the spots, or even better still the evergreen Candytuft. About a year ago at a nursery in Yorkshire I saw a beautiful bed of evergreen Candytuft, with clumps of Snowdrops coming through. Moreover, it was useful, for in spite of drenching rains and clay soil the Snowdrops were fit for picking for market. Tulips do excellently in the grass, but the short-stalked Van Thol section should be planted on the edges where the grass will not overrun them. There is usually little need to cut grass under dense trees early, and a succession of bulbs will render such dreary spots a delight to the owner. Bulbs grown in water are best planted out directly after flowering and a pot turned over them for a few days to protect them a little.

Some Good Evergreen Shrubs.—Rhododendrons are lovely, but will not grow in a limestone or chalky soil. They succeed best where the soil is peaty or alluvial, or red loam overlying the red sandstone. Hollies in groups in the shrubbery or on the lawn, or to form hedges, are among the most useful evergreen plants we have. They do best in a sandy loam. On the Surrey hills they appear to be growing vigorously in sheer sand. Berberis stenophylla is very hardy and graceful. It is more graceful and much harder than Darwinii, one of its parents. Boxes and Yews are hardy native shrubs, splendid as hedges. Laurels are useful for blinds and undergrowth in game coverts. The hardest kinds are latifolia and rotundifolia. If pruned annually they maintain their condition and effectiveness. The common Laurel suffers in severe winters, and should be discarded. The Portugal Laurel makes a handsome shrub, especially when in flower. Lawson's Cypress in variety forms a very interesting and effective group, but transplants badly unless frequently moved. The Indian Cedar (C. Deodora), Atlantic Cedar (C. atlantica), and Silver Firs in variety are good lawn trees. The Austrian Pine is a splendid shelter tree.

Killing Green Fly Outside.—This is one of the gardener's troubles that is always in evidence in spring. When the young delicate shoots come on the wall Roses keep a sharp look-out for the green fly. It is there almost before the weather is warm enough to use liquid insecticides, but Tobacco powder applied through an elastic instrument, which sends it forcibly in little puffs among the foliage, is a sure and easily-applied remedy. Peaches on walls may have the same attention.

Green Fly Under Glass.—The insect known as the green fly is small, but very destructive, and they are so prolific that, if given a free hand for only a few hours, much injury may be done. Scarcely any gardeners fumigate with Tobacco paper, in the old-fashioned way, now. Vaporising with nicotine is so much cleaner and cheaper, and is very effective, which the old-fashioned way was not. Once doing is generally sufficient for some time.

Mildew on Roses Outside.—When Roses are badly attacked with mildew more than once some effort should be made to ascertain the cause. The wind rushing round a draughty corner may, by causing a check to growth, produce mildew, but generally, when this pest is much in evidence, it may be taken as a sign that the plants want a radical change. Take the plants up, trench and

manure the ground, adding sand to open and improve it, prune the roots of the Roses, and then replant.

Mildew on Roses Under Glass.—Cold currents of air passing through tender foliage may be responsible for the presence of mildew under glass. There are other causes, such as dryness at the root, and want of drainage, by causing stagnation at the roots, may have a similar effect. Black sulphur is an easily-applied remedy, and there are other remedies which may be obtained from the sundry or seed shops.

Protecting Peas.—A good way to protect Peas is to take short branches of Yew or other evergreens about 1 foot high and stick them along the row on the side which is most exposed. It not only keeps the frost and cold winds from them, but also birds. I have tried it for two or three years, and find it a great success. I have a row of Peas up now, and although we are swarmed with all kinds of birds, the plants are not interfered with.

Arrears of Seed Sowing.—At this season, if one gets behind, it is difficult to get abreast of one's work again, and the man who counts the minutes and is chary of his time soon drifts until he becomes an afternoon man, and is, in fact, a lost creature. Do not sow or plant when the surface of the ground is wet and sticky; there is always a suitable seed-time for those who watch and are prompt to seize the opportunity when it comes. If the surface is stirred up with a long-toothed rake in the morning of a sunny day, the land will be in good order for sowing in the afternoon.

Some Picturesque Trees.—The Scarlet Oak, Purple or Copper Beech, Fern-leaved Beech, White Poplar, Silver Birch (Young's weeping variety), Scarlet Horse Chestnut, Purple Sycamore, Scarlet Maple (Acer colchicum rubrum), Purple Maple (A. Schwedleri), Purple Plum, Purple Nut, and Silver Maple are all useful to give character to a place, and will grow freely in almost any kind of soil if well broken up, and, more important still, good trees are cheap. No garden could be called commonplace which possessed a few good specimens of trees.

Blister on Peach Trees.—This never occurs under glass, and I know instances where the trees were badly blistered outside and were perfectly clean and healthy after being covered with glass. Cold winds rushing through the young tender foliage, followed by mildew and insects, soon ruin the trees. In one or two instances the trees were much improved after a deep drain had been cut along the front of the border. And where fruit trees fail there is often more than one cause operating to produce the effect. All fruit borders should be drained at least 3 feet deep. To cure blister temporarily, pick off all bad leaves and use Tobacco powder freely.

The Potato Boom appears to have expended itself. Even the new varieties may now be purchased at a reasonable price. It is best to try them first in small quantities in competition with some of the best old sorts. Up-to-Date still pays to grow in some districts, but The Factor will, I think, take its place. I have great faith in Sutton's Discovery as a future disease-resister, and this is what we are looking for, but this must be combined with good cooking quality.

GARDENING OF THE WEEK.

FLOWER GARDEN.

LAWNS.—If the dressing suggested in a recent calendar was applied at the time, most of the moss, Daisies, and succulent weeds will by now be brown and dead. In that case run the scythe lightly over the grass, rake heavily in cross directions with a wooden rake, and brush hard with a stiff Birch broom. This will clear away a quantity of dead stuff which if left would clog up the cutters of the lawn-mowers later. Any bare patches should be sown with fine lawn grass seeds sprinkled over with fine ashes from the rubbish heap, rolling frequently when the grass is dry. This done take a Wilkeham Weed Eradicator filled with weed-killer and examine the lawns carefully for Docks, Thistles, Dandelions, Plantains, and other noxious and strong-growing, deep-rooted weeds, stabbing each in the centre with the point of the Wilkeham, which by the contact liberates the required dose of poison. This is undoubtedly the best invention extant for this purpose. No further allusion need be made to these matters, for nothing beyond the ordinary routine of frequent mowing and rolling when the grass is dry and an occasional brushing over for reasons already alluded to will be necessary until the summer is far advanced.

FLOWER-BEDS.—Staking bulbs and other spring-flowering plants is, unfortunately, a necessity, or a storm of wind or even heavy rain will snap off some flower-stems. Some neat contrivances for this purpose are supplied by sundriesmen, but when these are not available and home productions have to be utilised, we find that stiff, plain fencing wire cut in lengths suitable for the various plants and painted a nice green makes as good and inconspicuous a stake for Hyacinths, Tulips, &c., as anything. The dried flowering stems of Michaelmas Daisies, Pyrethrum uliginosum, and such like are also useful for this work for a short time, and although more perishable than Hazel and Deal sticks, they are less clumsy in appearance. Box edgings should now be clipped without, I hope, fear of injury from frost.

WALKS.—At this advanced date it is improbable that frost severe enough to damage freshly-cut grass verges will occur, so newly-laid turf edgings grown out of line or encroaching on the gravel should be neatly and precisely trimmed forthwith. On straight lengths stretch a tight line as a guide for the worker, but on curves a heavy line or cart rope must be laid down loosely, as it forms a more natural curve than pegging. With a good eye and a little practice it becomes quite easy to form quickly any desired bend or curve in this manner. Use a sharp edging-iron, and always cut behind the line, i.e., having the line between the cutter and the walk. Newly-gravelled and dug walks must be often rolled while wet to ensure evenness and solidity. Temporary protection afforded during the winter to comparatively

TENDER SHRUBS on walls and in the open may now be entirely removed and the necessary pruning and tying done. There should not be much of the former to do now; better delay until flowering is over. *Pyrus japonica* and *Lardizabala bitermata* will soon be out of bloom; but *Azara microphylla* is now at its best, and although the flowers are small and inconspicuous, yet they fill the air with their delightful Vanilla-like aroma. It is an ideal wall shrub. After the recent storms see that transplanted trees and shrubs are safely secured to their supports, for wind-swaying is disastrous to their ultimate well-doing.

The Gardens, Tan-y-bwlch, North Wales. J. ROBERTS.

INDOOR GARDEN.

STREPTOCARPUS.—These plants have come to the front very much during the last few years. By potting up some of the old plants from January onwards and raising a few seedlings annually a display of flowers can be kept up from April till late autumn. The seedlings are now ready for pricking off. Some of the earlier potted plants are already showing the flower-spikes, and will benefit by an occasional dose of weak manure water. The most suitable place in which to grow them is a warm moist house. Syringe the stages and damp the paths, but not the plants. They thrive in a compost of peat, fibrous loam, and leaf-mould, with the addition of a little crock dust, broken charcoal, and plenty of coarse silver sand. For planting out in suitable positions in beds, borders, and rockeries they will be found most useful. These remarks apply chiefly to the hybrids. *S. Wendlandi*, with its one gigantic leaf, is well worth growing if given plenty of room, but when crowded together or moved about frequently the leaves become damaged and unsightly.

GENERAL REMARKS.—Sow an early batch of *Cineraria* and *Primula* seed and at intervals to keep up a succession till June. Use a light, fairly rich compost. Place in a temperature of 50° to 55°. Cover with a sheet of glass and paper till germination commences. The most forward *Achimenes* are ready for transferring from the shallow boxes in which they were started to pots, pans, or baskets. About 60° will be found a suitable temperature in which to grow them for the present. *Nepenthes* cut back some six weeks or two months ago can be moved into larger baskets or top-dressed. To display the pitchers to the best advantage it is preferable to grow them in baskets suspended from the roof. Use a compost of fibrous peat, sphagnum moss, and charcoal. Syringe several times daily. The plants delight in a very humid atmosphere.

THE COOL HOUSES.—Amateurs having only a cool house will find this the most suitable time for propagating and

potting plants or sowing seeds. Many cuttings root readily at this season under bell-glasses. The days are also longer, and although work can be done at night, it is not nearly so satisfactory as that performed by daylight. Ferns, *Aspidistras*, Palms, *Dracenas*, &c., should be examined. See that the drainage is in good order. Top-dressing will be sufficient for the majority. Potting is not advisable every year. If more plants are required divide some of the larger Ferns and *Aspidistras*. Insert cuttings of such things as *Geraniums*, including the scented-leaved varieties, greenhouse *Selaginellas*, *Tradescantia*, *Coleus*, and *Panicum variegatum*. *Fuchsias* are starting into growth; shake out and repot, or, if they are large specimens, top-dressing will be sufficient. Shake out and pot tuberous-rooted *Begonias* starting into growth, also sow seeds to raise a batch to flower next year. Syringe and close the houses early in the afternoon.

Royal Botanic Gardens, Kew.

A. OSBOEN.

ORCHIDS.

INSECT PESTS.—Thrips and other troublesome insects are making their appearance, and, if not checked, will multiply rapidly. Before thrips become numerous it is advisable to fumigate all the houses periodically. We do so at least once a week until the end of the summer, when it is gradually discontinued. The remedy against these insects is the XL All Vaporiser. There is no necessity for drying up the atmosphere of the house previous to using this compound, and damping down may be done as usual, but overhead syringing should be avoided, as this would drive the insects low down in the growths and in the axils of the leaves, where the fumes of the insecticide could not reach them. On the day following the fumigation the plants should be carefully shaded, as the foliage is liable to be injured by sunshine. Examine those plants which are known to be subject to thrips, and, if any of the latter are found alive, use the vaporiser again in the evening and the next morning. I have used this preparation for about eleven years, and have always found it deadly to thrips and aphids, and the plants generally are kept clean with very little trouble. With the exception of *Disa grandiflora* and its congeners I have had no Orchids injured. *Disas* do not like fumigation; the leaves have always turned black at the points when subjected to the fumes of this compound. The various forms of scale insects and mealy bug which infest some Orchids should also be checked by the same means; the brush and sponge must be constantly employed. Cockroaches must be got rid of by skilful trapping or by the various poisons generally advocated. Woodlice sometimes become troublesome just as the new roots begin to push out from the Mexican *Laelias*; they are also fond of the young roots of the various *Cattleyas*, tall-growing *Laelias*, *Miltonias*, &c. These pests may easily be caught by putting pieces of Carrot or Potato upon the compost, which should be examined every night and morning.

CALANTHE SEED.—As mentioned in my last calendar, the different varieties of *Calanthe Regnierii* are now in bloom, and as soon as the spikes are cut the plants should be placed upon a dry shelf in the warm house for a few weeks. When the new growths have fairly started the plants should be shaken out and repotted, as previously advised for the other varieties. Plants of any of the deciduous *Calanthes* that are carrying seed capsules should be placed in a sunny position to mature and ripen the seed. When the old flower-stems commence to die down, cut the capsules off, fold them in a piece of tissue paper, and hang them up in a dry place for a few weeks to ripen. By that time the earlier-potted plants will have made a considerable number of young roots, and upon the best-rooted plants the seed should be sown. Until the seeds germinate, which takes about two or three months, the plants must be carefully snarayed over whenever the soil appears the least dry. When the seedlings are up and become well rooted they will require plenty of water all through the growing period, but they must not be disturbed until the following spring. Last year's seedlings may be potted off now. My practice is to place seven or eight of these young plants around the edge of a small pot, and to suspend them close up to the roof glass in the warmest house or propagating pit. Until the new roots appear no water must be given to them, but when rooting and growing freely they should be treated as advised for the older plants. The rare *Eulophia guineensis* and *E. congoensis* are beautiful species; their rich flowers appear during summer, and last a long time in perfection. Both plants should be potted and treated exactly as recommended for the *Calanthes*, excepting that when growing they require more shade.

Burford Gardens, Dorking.

W. H. WHITE.

FRUIT GARDEN.

STRAWBERRIES IN POTS.—From now onwards these will require a lot of attention in regard to watering and syringing. A dry atmosphere or dryness at the roots encourages red spider, and much damage is often done to the permanent occupants of fruit houses through this cause. Thin out the fruits when set, leaving about six or eight of the strongest. The trusses will now require the support of stakes or they will break. Give the plants copious supplies of stimulants till the fruits commence to colour. Then remove them, if possible, to a cooler and drier house, where the quality of the fruit will be greatly improved. Old forced plants should be taken care of, with a view to making a plantation outdoors at a later date. They will give a splendid crop of fruit the first year after planting. This will admit of removing fruits from young plantations, thus assisting them to build up strong plants for another season. They will also throw plenty of early runners for forcing. A very welcome crop may be had

from these old forced plants in the autumn by choosing a few of the strongest and potting them into pots a size larger. Place them outdoors on a bed of ashes and keep them well supplied with water. Syringe them twice daily to keep them clean.

THE ORCHARD HOUSE.—As soon as the fruits of Peaches, Nectarines, and Apricots have set, thinning should be attended to, but it will be safer to leave Apples and Pears till they commence to swell. These, as a rule, will thin themselves. Stop all strong leading shoots and remove any fruitless branches, cutting them back to the bottom growth. The atmosphere must now be kept moist and the syringe used freely on fine days. Syringe them occasionally with a weak mixture of soft soap and sulphur, and if aphids appear fumigate with XL All Vaporiser.

HARDY FRUIT GARDEN.—The coverings on wall trees must be removed, or partly so, during mild weather, or the growths will become drawn and weak, causing them to suffer when exposed later. Apricots may be thinned as soon as they are set. Disbudding of Peaches and Nectarines may be commenced. This should be done gradually. Young trees especially must be carefully treated in this matter. The final disbudding should be later than for trees which are in full bearing. Any very strong shoots must be pinched to ensure an even distribution of sap. See that wall trees (especially those which are sheltered with glass copings) do not suffer for want of water. Examine newly-grafted trees and moisten the clay if it has become dry; moss tied over the clay will be of benefit when drying winds prevail. Rub out all shoots below the scion.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

ORCHIDS.

CALANTHES.

HAVING been requested by many friends to give a detailed account of the culture of *Calanthes*, it may be of interest to your readers if I do so through the columns of THE GARDEN. The bulbs are started into growth in March. The compost used is stiff loam and cow manure, about two parts of the former to one of the latter. Deep pans about 11 inches in diameter are preferred to pots, five or six bulbs being placed in each. The old bulbs are so arranged that the young growths have ample room to develop. Before potting, all the old roots are removed close to the base of the bulbs, so that they rest on the surface of the soil. A short stout stick is then put to each, to which they are securely tied for support until new roots are formed. Very little water is needed until the young growths are 3 inches to 4 inches long; when well rooted and the plants are in active growth, copious supplies are given both at the roots and over the foliage. *Calanthes* are gross feeders and therefore require plenty of support while growing. For this reason when the soil is well filled with roots liquid manure should be applied freely. No special care is needed during the growing season, except that the plants must be shaded from the direct rays of the sun, and the young growths kept in an upright position by staking, for unless this is attended to the weight of the foliage will cause the young tender bulbs to fall over and become ill-shaped.

Some may think this unnecessary, but they will find it of great advantage when the bulbs are a foot or more long, that being the size ours usually attain. Our plants are kept watered until the flower-spikes are cut, as we find they grow much longer when plenty of moisture is afforded. Bulbs of the above dimensions carry from three to four spikes each, varying from 2 feet to 5 feet long, and about the thickness of a man's finger. With us the plants are in bloom about three months. Having no special *Calanthe* house they are grown under the shade of Melons, so that they have to put up with all sorts of rough treatment, and, though the foliage is syringed, we have no spot, rust, or other disease, and the foliage is usually as green when the flower-spikes are developing as in the height of summer. We find by growing four or five bulbs in a pan that less attention is needed and more flowers are produced in a limited space; for instance, a pan 11 inches in diameter will give us about two dozen spikes, as many of the old bulbs produce two growths, sometimes three, so that by the

time the bulbs have finished growing they are crowded in the pans. Very little drainage is required, as the soil becomes filled with roots by the time growth is completed.

Buxted Park Gardens. H. C. PRINSEP.

PHAIUS GRANDIFOLIUS.

THIS well-known Orchid for the past month has made a grand display with its tall many-flowered spikes, set off by the beautiful dark green foliage, which when well grown makes it a worthy subject as a foliage plant alone. The flowers prove very useful at a period when there is little variety for large vases, and if cut as soon as the first ones are out will last quite three weeks, the buds continuing to open in water. For using in rooms either as single specimens or in groups, well-flowered plants are most valuable, they withstand the hot dry atmosphere better than the majority of flowering plants available at this season, the eater portion of which are subjected to hard

seen in full bloom. It is, without doubt, one of the most attractive *Cypripediums* in cultivation. The dorsal sepal is white, shaded rose at the top, pale green at the base, and heavily lined from the base upwards with bright purple; the petals have the deflexed character of the pollen parent, and are pale green lined with dark brown. There is also some spotting of the same colour; the lip is dark brown shading to green. It is certainly one of the most distinct and beautiful of *Cypripediums*. Compared with the original plant in the collection of Baron Sir H. Schröder, The Dell, Englefield Green, the markings of Mr. Measures's plant are, perhaps, not so deep, but the whole flower has a much brighter appearance.

CYPRIPEDIUM WM. LLOYD SUPERBUM.

When calling a few days ago at The Woodlands, Streatham, I had the pleasure of seeing this beautiful *Cypripedium* in bloom. It was raised at The Woodlands, and is the reverse cross of the *C. Wm. Lloyd*, having in this case *C. swianum*

flesh rarely cooks around it. The flesh is brown when cooked and uninviting in appearance, and the variety takes a long time to cook thoroughly. Bismarck, on the other hand, is a perfect cooking Apple, and I know no variety better in flavour. As an Apple for sauce—not a bad test so far as cooking can test—Bismarck is superb, while the exceeding smallness of its core, and the way the flesh responds to heat, renders the variety not only valuable, but exceedingly economical when compared with many others. Bismarck is in perfect condition to the end of March. In short, I think so highly of it that I am discarding Prince Albert in its favour. Too many, I fear, have judged this latter from its well-finished exterior, and well-coloured fruits of it are certainly good to look at, but this is not merit.

Hampton Hill.

E. H. JENKINS.

PEAR MARGUERITE MARILLAT.

SOME varieties of Pears are never so fine as when grown against a wall, and Marguerite Marillat is one of them. The illustration is from a photograph taken in the Royal Horticultural Society's gardens at Chiswick. There, as may be seen, this Pear grew and fruited well as a cordon on a west wall. Even the fog and smoke, of which Chiswick has a large share, did not seem to affect the trees. Pear Marguerite Marillat is a splendid garden Pear; it bears freely on the Quince stock, and the fruit is often 1 lb. in weight. When grown as a wall tree on the Pear stock it does exceedingly well.

T.

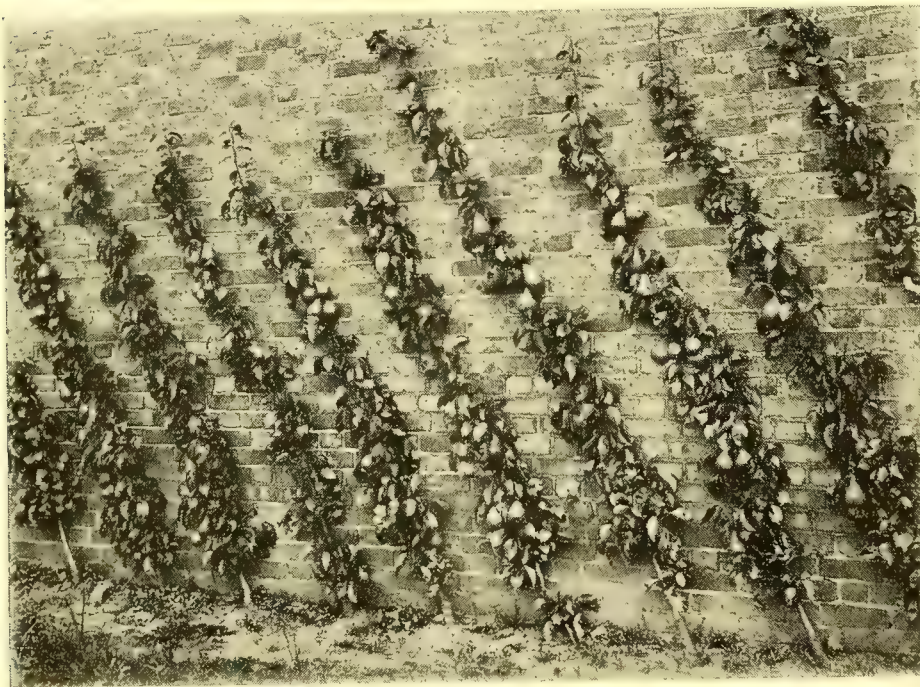
APPLE ROUNDWAY MAGNUM BONUM.

I HAVE grown this Apple many years, and have come to the conclusion that it is a bad variety to use as a parent for the raising of new varieties. In the first place, it is of too rambling a habit of growth, requiring so much space. It is ungainly, too, in its habit, and it is far from being free bearing. These are two points of importance in selecting parentage for future progeny. E. M.

GUMMING IN APRICOTS.

MANY people grow Apricots, but more would certainly do so were it not for that disappointing habit the trees have of exuding gum, which frequently results in the death of whole branches. Young trees invariably do well, but well-furnished matured specimens are rarely seen, because it is when they reach maturity that the above trouble asserts itself. I am not prepared to say that there is any infallible means of avoiding gumming and preventing the branches dying away, but the other day I saw a very simple attempt at this, and was much struck with the results. It was in the case of a long wall furnished from end to end with Apricots, and bare spaces caused by the decay of branches, so common on Apricot walls, were notably conspicuous by their absence. I noticed, however, that some of the stems and many of the branches were bound up in poultices of clay, covered with moss and tied on, and this method of stopping gumming is adopted with marked success.

Whenever a branch betrays signs of exuding gum the place is plastered over with clay, which in turn is covered with moss, and the whole is bound round. Nothing further is done beyond keeping the poultice moist by watering it frequently through a rose can. To show the efficacy of the method one of the poultices was removed for my inspection, and I was surprised to see how the gum wound had healed and new bark had grown over the place. The theory is that the gum is absorbed in the poultice, and the keeping of the clay moist encourages the fresh young bark to grow. Perhaps wax of some kind would serve the same purpose, but the moisture from the clay seems to be an important factor in the formation of new bark. It would be interesting to know whether any readers of THE



PEAR MARGUERITE MARILLAT AS A CORDON ON WEST WALL.

forcing. This Phaius is comparatively easy to grow. Liberal treatment through the growing season gives the best results. T. B. F.

ORCHIDS IN FLOWER.

CYPRIPEDIUM VENUSTUM MEASURESIANUM.

ONE of the most noteworthy varieties of *Cypripedium* seen in bloom recently in the collection of R. H. Measures, Esq., The Woodlands, Streatham, was *C. venustum measuresianum*. It is certainly one of the most exquisite of all slippers. The dorsal sepal is white, thickly covered with bright green lines; the petals are of a bright yellow, with pale green lines running part of their length, while the lip is also bright yellow, but with numerous and deep green veins. The foliage of this magnificent variety is also distinct from the typical *C. venustum*, the purple markings usually seen on the lower side are entirely absent, and the upper sides are somewhat lighter in their markings. It is one of the rarest and most valuable varieties.

CYPRIPEDIUM BARON SCHRÖDER.

This rare hybrid of *C. cananthum superbum* and *C. fairieanum* was, on a recent visit to the Orchid collection of R. H. Measures, Esq., to be

as the seed parent and *C. bellatulum* the pollen parent. The flower is very wax-like, and is of a dark rose and crimson colour, the petals being very closely spotted; the broad upper sepal has feathered crimson-purple lines. In form it partakes very largely of the *C. bellatulum* character; altogether, it is well worthy of the distinction *superbum*. ARGUTUS.

THE FRUIT GARDEN.

APPLE BISMARCK.

ONE is more than pleased to read the excellent opinion formed of this fine cooking Apple by Mr. J. Wright of Gloucester. It is a culinary Apple in the truest sense, and in other ways its brilliant colour and handsome size are sufficient recommendation. A few years ago I planted a few trees each of that greatly overrated Apple Lane's Prince Albert and Bismarck. Both varieties crop splendidly, and in this and appearance I could wish for nothing better. At this point, however, the two varieties must be separated. Prince Albert has a comparatively large core, and the

GARDEN have had experience of this remedy for gumming in Apricots, which is certainly a detriment to the extended culture of this delicious fruit. H.

APPLE STRIPED BEEFING.

To those about to devote land to the cultivation of Apple trees I would strongly advise the planting of this noble fruit. It is one of the most handsome and best culinary varieties in cultivation, and for baking it is unrivalled. The tree is very hardy, and an excellent bearer. The fruit is in use from October till May, and always finds a ready sale in the market. T. B. FIELD.

DESSERT APPLE RUSHOCK PEARMAIN.

It is somewhat surprising when really first-class late dessert Apples are so scarce and valuable that some of those of local fame are not more generally grown. There are still in many rural districts Apples of the highest merit which have been grown there for many years, and by which much store is set, but for some reason their culture remains in a limited area. To a great extent this may be said of the above-mentioned variety, as we seldom find it in any quantity outside Worcestershire and Herefordshire. There are few Apples, indeed, which can surpass the Rushock Pearmain as there grown at the present season for flavour, briskness, firmness of texture, size, shape, and colour—all that one can desire in a dessert Apple. It is also known in the counties named under the name of Charles's Pearmain, and there are few farm orchards where large healthy trees do not yield heavy crops. We are inclined to believe, however, that many of the growers send their produce to local markets ungraded, and too early in winter when there are quantities of other sorts. The variety improves with keeping, and if selected samples were placed on the market at this season they would not only command a better price, but materially add to the list—really a short one—of first-class home-grown dessert Apples.

RICHARD PARKER.

GRAPE MADRESFIELD COURT.

This Grape has in the past afforded many instances of what appeared at the time peculiarities in culture, effects of stock when inarched upon other varieties, locality, and sundry other circumstances; but when we see this Grape produced under varying conditions in such a high state of perfection as is now so frequent, one is forced to the conclusion that its cultural requirements are more understood than was frequently the case before it was so common in gardens. To the late Mr. J. Meredith of the Garston Vineyard, near Liverpool, now the noted Orchid establishment of Mr. J. Cowan, belonged the credit of first exhibiting this Grape in its true character. This would be about the year 1872. The bunches were quite short, but with immense berries and beautifully finished. So well did this Grape flourish at Garston that one vine of it quickly filled a small vinery, the glass partition adjoining was taken out, and the vine extended into the next house with great success. I have seen many instances of this Grape succeeding well when inarched upon other varieties, especially an instance of its success upon Lady Downe's Seedling in a garden near Eastham, Liverpool, where the bunches were of huge size, berries good, and well coloured. I have seen it fail when inarched upon Gros Colmar; not only were the berries devoid of colour, but they split very much, which is a common fault under adverse atmospheric conditions, want of proper attention in its lateral growth, and border conditions. I have seen very fine bunches produced in a cold Peach house, without the slightest artificial warmth. The bunches produced good berries and colour, sufficiently so to win in stiff competition at a leading show. Given reasonable treatment, an

inside border for its roots, and a free rafter space in length and width, with abundance of the right kind of foliage, and immunity from red spider, which is one of its worst enemies, and Madresfield Court, on its own roots, will give a greater weight of high-class fruit of a Muscat flavour over a greater number of years than any other Grape.

E. MOLYNEUX.

BOOKS.

Handbook on Pruning Roses.

We can heartily recommend this little book just issued by the National Rose Society. It may appear to those who know all about Roses that such a publication as this is absolutely needless, an excuse to publish a gardening book, and the forerunner of many books confined to a little corner of garden work. But the truth is, the operation of pruning Roses is a mystery to the average Rose grower. He persists in cutting back the growths of climbers that are to bear their flower burden in due season, treating with undeserved tenderness the shoots of the bedding Roses, and, in fact, doing everything in the wrong way. The object of this book is to help the Rose grower, and surely no garden is without its Roses in rich abundance and representing many different classes, each of which requires special treatment. The book is freely illustrated with diagrams, drawn so clearly and instructively that it is impossible surely to go astray. The experience here set forth is that of Rose experts, who have taken into consideration all classes of Roses. Copies can only be obtained by those who are not members of the Rose Society through a member, and the price is 2s. 6d. (post free). It is to be obtained from Mr. E. Mawley, the hon. secretary, Rosebank, Berkhamsted.

The Country Day by Day.*—Mr. E. Kay Robinson is a keen observer of wild Nature, and in this volume we have a record in which he has set down, so that we can share and enjoy, all the little "happenings" that have come under his notice during a whole year; and it is so easily written that we are quite carried along the year, while he alternately enlists our sympathies with some dire tragedy in bird life, or raises a smile over some little domestic comedy among the beasts; or, again, paints us a delightful picture of sapphire sea and sunlit sand, as in "Autumn's Beauty by the Sea" (September 30). How interested we become when we arrive at an entry like "The Baby Redshank's Adventure," where Mr. Robinson tells of the redshank's "move" to the salt marsh by the sea, "the long-legged babies, like little puffs on stilts, obediently sneaking by secret ways, past village and farm, swimming the dykes and scuttling across the high roads, while their anxious parents overhead whistle encouragement and advice." And we read with quite a feeling of relief that one that had incautiously strayed on to the cricket pitch was caught up and carefully deposited in a ditch by the hedge. One is amused with many quaint conceits of the birds, and delightfully humorous is the description of the fox's family party, the "father" fox's pretended aloofness, as if he were not quite sure what kind of creatures the cubs might be, his occasional unbending, until the romp becomes too furious, and he remembers his dignity, for "the line must be drawn somewhere." We might give many more instances of the interesting nature of Mr. E. Kay Robinson's book, but after all his writing is familiar to readers of THE GARDEN, and so will content ourselves with drawing attention to the graphic way in which he brings vividly before us the difference in the season travelling from north to south; as he tells us, in the morning you may have picked the "first wild Rose" of the northern year,

* "The Country Day by Day." By E. Kay Robinson. Published by William Heinemann. Price 6s.

then as the train speeds on you notice in the hedges many single blossoms; further south still long trails of bloom, until, when you reach your destination, one may say to you, "Wild Roses? Oh, yes, plenty; but you ought to have seen them last week!"

A new work on gardening at the Antipodes is to be published by Mr. Elliot Stock immediately, entitled "My New Zealand Garden," by a Suffolk lady. The work will be illustrated by views of nooks and corners, and remarkable shrubs and trees in the garden.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

EGGS ON PEACH TREES (Waterloo).—The little round objects that you find on your Peach trees are eggs, I believe, of one of the "beetle mites." If they are they need not be interfered with, as these mites are quite harmless. I will try and find out what they turn to, and if successful will let you know. If you wish to destroy them, dip a stiffish brush in paraffin emulsion, or some similar insecticide, and brush the part where the eggs are thoroughly.—G. S. S.

CATERPILLARS AT ROOTS OF ROUGH GRASS (G. M.).—The caterpillars you find at the roots of the rough grass that you are digging up are those of the common Swift Moth (*Hepialus lupulinus*). They are very destructive to the roots of many cultivated plants, so I should certainly destroy all I could find. I cannot suggest any other way of killing them but turning them up out of the ground and then dealing with them as may be most convenient. It would probably be well to burn the grass with a view of destroying any that may remain hidden among the roots.—G. S. S.

FIG TREE NOT FRUITING (E. H.).—Whilst in heated houses Fig trees will, as a rule, give three crops of fruit in one year, outdoors, even in warm situations, they give but one crop, and then only where well trained to a warm wall. Your tree has been allowed to run wild. Your best course would be to cut the large bushy headed branches hard down, then securing quite new shoots or growths from the base of the tree, have those nailed in close to the wall, from 6 inches to 9 inches apart, and so keep all other shoots that may follow, cutting out any that are too close. In that way, and fully exposed to the sun's warmth, no doubt you will get hard ripened wood that will carry fruit. You will also need to severely prune the roots. Open a trench 3 feet from the stem, and fully 2 feet wide and deep. In refilling the trench add a good proportion of old mortar refuse and wood ashes, but no manure. Fork off and remove a few inches of the top soil, and replace with fresh, also adding old mortar rubbish, and on that, for the summer, a mulch of long manure.

PLANTS FOR VARIOUS BORDERS (A. L.).—We think you could not do better than plant tuberous Begonias in the beds on the terrace; the newer varieties are very beautiful, and the plants last in flower a long time, or you might fill one with

Carnations. Try Tufted Pansies (*Violas*) in the border facing east, China Roses, Lavender, and Rosemary in the border facing south, while in the one facing north you should plant *Anemone japonica* (Japanese *Anemone*), Tufted Pansies, Day Lily, Solomon's Seal, and *Erica carnea*. You cannot, of course, expect the latter to grow so well as under better conditions.

CREOSOTE FOR PRESERVING WOODWORK (*A. R. Hinks*).—I am sorry to say that I cannot give you any information as to whether creosote if used as a preservative for woodwork against which plants are trained would injure them or not. I have never heard of creosote being used for this purpose before, but I should not think that any injury would be caused if the posts, &c., were allowed to become thoroughly dry before the plants were fastened to them.—G. S. S.

GRUBS (*Miss Holt*).—The insect that you sent is the larva or grub of one of the Rove beetles (*Staphilinidæ*). These insects are decidedly useful in gardens, as they are entirely carnivorous, feeding upon smaller insects. Perhaps the best known of these beetles is the long, narrow, black insect commonly known as the Devil's Coach Horse. It may often be seen running across paths, and if interfered with immediately throws its tail over its back and assumes a threatening attitude. Both the beetles and their grubs are carnivorous. The grubs of the Ground beetles (*Geodephaga*) very much resemble these grubs, and it is often difficult to distinguish one from the other, but as the habits of both are similar it is of not much consequence to which order they belong. I think it may be taken as a rule that any insects that run rapidly are harmless in gardens, as they are generally carnivorous. Vegetable feeders have no object in moving swiftly. Cockroaches are an exception, but then they will eat anything.—G. S. S.

NAMES OF FRUITS AND VEGETABLES (*Potato*).—Out of the thirteen tubers there are evidently three varieties. The nine in one parcel are all alike, and of the four sent two are of one variety and two of another. But we may say at once that it is impossible to name either with any certainty, and as you wish to put the stock on the market, it might become a matter for a court of law if you sold the stock under a name that, after being grown, proved not to be correct. Haulm or tops differ materially, but tubers in so many varieties differ so little, and, still farther, varieties assume one form in one soil and a diverse form in diverse soil. So far as we can judge we think the nine tubers to be Sir J. Llewelyn, the two long roundish tubers to be Sutton's Ideal, and the two white flat ones Snowdrop. But clearly understand these names are problematical ones. It would be possible to find the names correctly only if the varieties were grown with many others, but with some hundreds in cultivation that would be a big job.

ERECTING A CONSERVATORY (*Iveagh*).—It appears from your sketch that the space available for the greenhouse is little more than 4 feet wide, unless you put up a structure of sufficient width to allow of the glass door of the morning-room opening into it. If so, your better way will be to erect what is known as a hipped or half-span house, as the plants do not draw on one side so much when growing as in an ordinary lean-to. We take it, however, that you wish to limit your house to the right hand or northern side of the glass door, thus leaving it free to the outdoor air. If so your house will be an exceedingly narrow one, and of little practical use. Instead of this last we should prefer to clothe the wall with a few of the many beautiful flowering shrubs, with a border for a few select perennials in front of the shrubs. Again, a house sufficiently wide to enclose the glass door and the length of the wall, that is, about 20 feet, would require far more attention than an occasional gardener could bestow upon it. For such a structure the half-span is much to be preferred. This has full length

rafters in front, and at the back short ones, extending from the top of the wall to the apex of the roof. The front wall should be about 3 feet high, and on this movable lights 18 inches deep, thus making the height of the lowest part 4 feet 6 inches. Before commencing such a structure you should put yourself in communication with some of the horticultural builders, whose addresses may be found in the advertisement pages of *THE GARDEN*, and obtain an estimate, as such firms can do the work more cheaply than an individual, owing to the wholesale manner in which they purchase the materials, and the conveniences they have for working it up.

GROWING A SMALL ORANGE TREE (*Citron*).—There is no need to cut off the Oranges from your plant as long as they remain attractive, but directly they begin to shrivel remove them. The specimen referred to should be encouraged to make good free growth in the moderately-heated greenhouse, an occasional syringing being beneficial to it when in the growing stage. If the roots are in good condition Oranges will stand for years without repotting, but if necessary that they be potted the best soil is about equal parts of loam and leaf-mould, with a fair sprinkling of small nodules of charcoal and silver sand. When the plant is not repotted an occasional dose of weak soot-water is beneficial, but liquid manure should not be given, as Oranges are better without it, and the same holds good regarding manure mixed with the soil. Cuttings of the growing shoots are very difficult to strike, and the only way to propagate Oranges is by grafting them upon young seedling stocks, which can be easily raised from the pips. They must be grown on separately in small pots, and the operation is best performed when the stocks are about the thickness of a straw, or from that to a pencil. Side-grafting is the method generally employed, the stock being partially headed back, but not removed entirely till a union is complete. When grafted the plants must be put into an airtight propagating case, and kept closely shaded till the grafts commence to grow. Though, as above stated, Oranges are increased by grafting, the operation is scarcely one that we should recommend for an amateur to carry out.

MYRTLE TREE (*A. Woodhead*).—It is not at all likely that pruning will do your Myrtle any good, as in all probability the roots are in a bad condition. If, as you say, it has been kept outside, it is surprising that the plant is even alive, for the Myrtle will not stand out of doors in the London district, and except in favoured parts of the country it must be regarded as a greenhouse rather than a hardy plant. Still, if wintered under shelter, it does well outside during the summer. The best thing you can do is to give it some fresh soil, such as a mixture of loam, peat, or leaf-mould, and sand, all well mixed together. Take the plant out of the tub, and with a pointed stick work away as much of the old soil as possible. When this is finished you will no doubt find that there is ample room again for it in the tub. Drainage is very essential, some broken crocks in the bottom being the most effective. In potting, or rather tubbing, take care that the soil is worked thoroughly around the old ball of earth, and pressed moderately firm in a uniform manner. When finished give a thorough watering, and stand your plant in as sheltered a situation as possible. As the roots take hold of the new soil young leaves will be pushed out, and it is probable that before the summer is over your Myrtle will have vastly improved.

TRAINING WEEPING ROSES (*Fairfield*).—You could no doubt obtain wire frames fashioned like an umbrella on which to train the weeping Roses, but iron or wire should be avoided as much as possible where the Rose is concerned. An excellent plan, and one we have found to answer well, is to place a small hoop, made of bamboo cane or osier, beneath the head of the

tree, then regulate the growths to it. The first thing to do is to place a stout stake to support the stem, then tie two sticks crosswise at the top, and of the diameter of the proposed hoop. This hoop, which is attached to the cross-sticks, should be about 12 inches to 15 inches diameter, or more, if the trees are large ones. These hoops may be renewed annually, or you could have a hoop of stout wire and bind it over with some green material, which does not then make its appearance objectionable, and also danger from the contact between the shoots and the wire minimised. The Ayrshire and most of the Wichuraiana Roses droop naturally, and the less training the better. We do not want too much formality in the Rose garden, or in any other part. There is usually enough creeps in, however careful one may be. Another good plan to make the Roses form shapely drooping heads is to attach some tarred twine to the growth and gently bend it as required, then secure the twine to the stem of the tree. All weeping Roses are best if pruned hard the first spring after planting. They will then have made good long growths by the autumn, which will flower well the following year if left intact at pruning time. You will find that the trees that are tied down as proposed will send out vigorous growths from the centre of the head. These should be allowed their freedom the first season. The following year they are tied down and made to replace some of the older shoots that will be cut out.

SPIRÆAS IMPORTED (*B. J. A.*).—The *Spiræas* should be planted at once, but not pruned at all, for any branches cut off now will only lessen the display of flowers. After the flowering season is past any old and exhausted shoots, especially towards the centre of the plant, may be cut out. You must, however, avoid severe pruning, more especially the first season after planting.

CORCHORUS (*Novice*).—The true name of the shrub sometimes known as *Corchorus japonica* is *Kerria japonica*, and this flowers on the shoots of the current season. It may after flowering be cut down to the level of the wall, but except for thinning out any old and exhausted shoots, the more pruning is indulged in the less will be the display of flowers. Though so often grown against a wall, this *Kerria* forms a delightful shrub when in the open ground.

BROCCOLI AND CAULIFLOWER (*Novice*).—Botanically the Broccoli and the Cauliflower are one and the same thing, and though gardeners keep the two distinct, there is really little or no difference between the Cauliflower and some forms of Broccoli. The Cauliflower is said to be more tender and delicate in flavour than the other. Between the various forms of sprouting Broccoli and the Cauliflower no confusion need, of course, arise, but in the case of the ordinary white form no hard and fast line can be drawn.

ARTIFICIAL APPEARANCE OF POND MADE OF BLUE CLAY (*P. H. J.*).—The conspicuous blue colour will soon tone down after the pond has been filled awhile, but if you desire immediate effect cover the sides and bottom with a layer of soil. Pieces of turf might be pegged on the sides, but the pegs must not be driven in too deep, or your pond will leak. If here and there you would like to cover the sides with rugged-looking stones, provide flat flagstones or slates for the rough stones to rest on, as otherwise they might sink too deeply into the clay.

LIME TREES DISEASED (*W. Von Schröder*).—In all probability the trouble with your Lime trees is the result of the excessively wet summer of 1903, having caused the heavy clay soil around the roots to become in a stagnant condition. Of course the mischief would take some time to show itself, and it is very probable that the worst part of the attack is now over, as during the last twelve months the ground has been gradually assuming its normal state, and with that the roots would again become more active.

NAMES OF PLANTS.—*H. C. R.*—*Scilla bifolia*.—*Comte J. Lurani*.—*Galanthus Cassaba*.—*C. West*.—*Gongora atropurpurea*.—*W. J. R.*—As far as we can decide without cones the specimens are: 1, *Abies nordmanniana*; 2, *A. bracteata*; 3, *A. grandis*; 4, *Tsuga (Abies) canadensis*; 5, *Abietia (Abies) Douglasii*; 6, *Sequoia sempervirens*.—*S. H. O'Grady*.—The shrub is *Spiraea Thunbergii*.

NAMES OF FRUIT.—*Hy. F.*—1, Lord Derby; 2, Pennington's Seedling. —*C. N. P. P.*—1, Lamb Abbey Pearmain; 2, Hereford Bessing; 3, Reinette Grise. —*A. D. M.*—1, Old Hawthornden; 2, Tower of Glamis; 3, Lemon Pippin; 4, Harvey's Wiltshire De-fiance; 5, arrived rotten; 6, Bess Pool; 7, Rensmay Rayset; 8, Braddick's Nonpareil; 9, Reinette Grise. —*F. V. H.*—Apple Auntie Elizabeth.

SHORT REPLIES.—*F. C. B.*—There is now no doubt whatever that the plant sent is *Pelargonium Mne. Salleri*, a variety sent from the Continent about twenty years ago. We have never known it to flower. —*A. H. Wilson*.—We have not before met with such a case as yours, and can only suggest that your plants of the Kangaroo Vine (*Vitis* or *Cissus antarctica*) have been scorched by bright sun following a spell of dry weather. If so, the plant will in all probability soon grow out of this. —*W. C.*—The large Fern is *Polypodium aureum*, the small one is a seedling *Blechnum*, but, being only in an immature state, it is impossible to say more. The other plant, of which only the tip of a shoot is sent without any intimation of where it is grown, is probably either *Vinca alba* or *rosea*. If the flower is white it is *alba*; and if pink, *rosea*. In future please number specimens and give some idea of what they are, as we are not gifted with the power of second sight. The *Lycaste Skinneri* flower is certainly a very good one. The flowering of *Cocos weddelliana* has a somewhat weakening effect on the plant, hence it will be better to remove them as soon as they are sufficiently developed to do so. The variegated-leaved variety of *Cyperus alternifolius* first originated as a sport from the ordinary green-leaved form, and, in common with a great many variegated leaved plants—the *Aspidistra*, for instance—there is a tendency to revert to the type. This is far more likely to happen if the plants are potted in rich soil than if a poorer compost is used. Equal parts of peat and loam, with a good dash of silver sand, form a very suitable mixture for the variegated-leaved *Cyperus*. —*J. G.*—The enclosed spray is *Eunomys radicans variegatus*, a native of Japan, and quite hardy in this country. Ordinary potting compost will suit it well, say, two parts loam to one part of leaf-mould, and a little sand. If too straggling the plant may be cut back, but in that case do not repot till the young shoots begin to break out. The shoots that are cut off in pruning may be dibbled into pots of sandy soil and stood in your frame, where, if shaded from the sun, many of them will root. —*J. G.*—The seed referred to is evidently that of *Cosmos hybrida*, a very pretty annual with finely-cut foliage. It will reach a height of 3 feet to 5 feet, and flowers profusely during the summer months. The individual blossoms much resemble those of a small single *Dahlia*, and, being produced on long stems and lasting well in water, they are very useful in a cut state. The seed should be sown at once in your cold frame, and, as soon as the first leaf (apart from the cotyledons) makes its appearance, they must be pricked off into pans or boxes; then, as soon as all danger from frost is over, they should be planted out in the open border, putting them at least 1 foot apart.

LATE NOTES.

Midland Daffodil Show.—We held a committee meeting on the 24th ult. to consider the dates of our Daffodil exhibition, and having ascertained the opinion of some fifty of the principal exhibitors, a large majority of which consider the present a very early season, we have decided to hold the exhibition on Tuesday and Wednesday, the 18th and 19th inst., instead of the later date, the 27th and 28th inst. A great many of your readers visit our exhibition, and this information may be of interest to them. —ROBERT SYDENHAM.

The Government fruit enquiry. The departmental committee appointed by Lord Onslow to enquire into and report upon the fruit industry of Great Britain held sittings on the 21st to the 24th ult. The following members were present: Mr. A. S. T. Griffith-Boscawen, M.P. (chairman), Colonel Long, M.P., Mr. C. W. Radcliffe-Cooke, Mr. Hodge, Mr. Vinson, Dr. Somerville, Mr. P. Spencer Pickering, M.A., F.R.S., the Rev. W. Wilks, M.A., and Mr. Ernest Garnsey (secretary). The committee had under their consideration the draft report prepared by the chairman.

Testimonial to the Rev. G. Henslow.—At a recent meeting of the Royal Horticultural Society's scientific committee, Dr. Masters, on behalf of the committee, after referring to the great interest Professor Henslow had always taken in the work of the committee, and expressing the great regret felt by all on his

resignation, presented him with a silver tea and coffee service, bearing the following inscription: "Presented to Rev. Prof. G. Henslow, M.A., V.M.H., by the members of the scientific committee of the Royal Horticultural Society in grateful remembrance of his valuable services as secretary, and as a token of friendly association during a period of twenty-five years." Professor Henslow, in replying, referred briefly to the history of the committee with which he had been associated since its start, and thanked its members for the support they had always afforded him, and for the mark of their regard with which they had presented him that day.

Obituary: Mrs. Allan.—It is with the very keenest regret that we have to record the death of Mrs. Allan, the wife of Mr. W. Allan of Gunton Gardens, Cromer, which occurred very suddenly on Saturday last. Every year Mr. Allan has received visits from many of the leading horticulturists in summer, and we are sure they will agree with us that their visits were always made additionally happy by the kindly manner in which Mrs. Allan always welcomed and entertained them. The very deepest sympathy of his friends, who are many throughout the length and breadth of the land, will be extended to Mr. Allan and his family in their sad bereavement. —P. CLAYTON.

SOCIETIES.

HORTICULTURAL SOCIETIES' SCHEDULES.

HAWICK.—The annual show of this horticultural society will be held on Saturday, August 26. The hon. secretary is Mr. William Oliver, 20, Slitrig Crescent.

Midland Carnation and Picotee Society.—The fourteenth annual report for 1904 is published. From it we learn that the fourteenth annual exhibition was held at the Elgbaston Botanical Gardens on Thursday and Friday, August 4 and 5, and was a great success, the blooms staged being of very high quality, notwithstanding the exceptionally hot weather previous to the show. The committee again tender their hearty thanks to the subscribers and exhibitors in all parts of the country who each year contribute so much to the success of the society, also to the judges whose kind assistance is so much appreciated. The best thanks of the committee are given to the committee of the Birmingham Botanical and Horticultural Society for their liberal support and handsome medals, also to Messrs. Robert Sydenham, William Robinson, and Messrs. Walker and Sons for the special prizes so kindly given by them. The hon. secretary regrets to announce that the receipts at the last exhibition were, unfortunately, not so large as in 1903, owing to the bad weather on the first day of the show. This has materially affected the balance in hand, and he trusts that all the members will use their influence to induce their friends who are interested in the Carnation to become supporters of the society. Mr. W. H. Parlon regrets that he is unable to continue in office as hon. secretary and treasurer, owing to pressure of business, and the committee consider that the society is exceptionally fortunate in obtaining the services of Mr. T. Humphreys, curator of the Botanic Gardens. Wednesday and Thursday, August 2 and 3, are the dates fixed for this year's show.

Croydon Chrysanthemum Society.—The eighteenth autumn show will be held on Tuesday and Wednesday, November 7 and 8, at the Public Hall, George Street, Croydon. Prominent in the schedule is the offer of the Croydon Challenge Cup for fifteen cut blooms of Japanese, distinct, and fifteen cut blooms of incurved, distinct. In addition to the cup (value 25 guineas) there is a first prize of £5 and others. The secretary is Mr. W. B. Beckett, 272, Portland Road, South Norwood, S.E.

ROYAL BOTANIC SOCIETY.

The first exhibition of the year was held by this society in the Botanic Gardens, Regent's Park, on the 22nd ult. There was a very bright though not a large display of plants and flowers.

Messrs. J. Hill and Son, Edmonton, exhibited a splendid group of Ferns in variety, that included a fine specimen of *Polypodium glaucum giganteum*. A certificate of merit was given to *Pellea robusta*, which has very dark green pinnate fronds about 18 inches long. A gold medal was given to the group.

Mr. G. Reuthe, Keston, Kent, had a charming lot of alpinas, e.g., *Anemones*, *Primulas*, *Irises*, *Saxifragas*, *Shortia*, &c. Silver-gilt medal.

The Cyclamens shown by Mr. John May, St. Margaret's, Twickenham, were well-grown plants, and the colour of the flowers good and distinct. Large silver-gilt medal.

Miss Adamson (gardener, Mr. Kelf), South Villa, Regent's Park, exhibited a bright lot of spring flowers, as *Tulips*, *Daffodils*, *Magnolias*, *Azaleas*, *Dicentra*, &c. Large silver-gilt medal.

Messrs. T. S. Ware, Limited, Feltham, exhibited a large group of *Daffodils*, alpinas, *Primula Sieboldi*, &c. A certificate of merit was given to *Arabis aubrietoides*, which has pink flowers. Large silver-gilt medal.

Mr. John R. Box, West Wickham, Croydon, showed an excellent lot of *Begonia Gloire de Sceaux* and a few alpinas.

A new Clove-scented Wallflower-leaved Stock, named All the Year Round, shown by Mr. S. Mortimer, Farnham, received a certificate of merit. A large group of it was exhibited, and received a large silver medal.

Messrs. Ambrose and Son, Cheshunt, were given a bronze Banksian medal for an exhibit of *Carnations* and *Daffodils*. A new scarlet-cerise variety named *Flamingo* gained a certificate of merit.

The Four Oaks Nurseries Company, Sutton Coldfield, Birmingham, showed their famous undentable syringes and other garden tools.

Mr. G. H. Sage, 71, Manor Road, Richmond, showed Bruce's flower displays.

Messrs. John Laing and Sons, Forest Hill, sent *Begonias* and *Anthuriums*.

Mr. J. Williams, Oxford Road, Ealing, showed rural table decorations, and from the Botanic Gardens Horticultural School various apparatuses were sent.

REDHILL AND REIGATE GARDENERS' ASSOCIATION.

THIS society held its fortnightly meeting on the 14th ult. under the chairmanship of Mr. W. Seaman. A large number of members were present. The chairman introduced Mr. Black of Streatham, who read a paper on "Orchids." In the course of Mr. Black's remarks he said it seemed absurd to give such fabulous prices for this particular class of plant, as many beautiful Orchids could be procured at a very moderate figure. It was no doubt owing to this fact that so many beautiful Orchids were to be found in almost every garden. That the Orchid is becoming more popular every day there is little doubt. Mr. Black dealt at some length with the subject of cross-breeding, in which he strongly advised keeping to one shade of colour rather than crossing with a light or dark one, as the case may be. Much better results are generally obtained than in the case where two decided colours are used. The cultivation of the various species was fully described, also the most suitable compost. The lecturer strongly advised a visit to some of the best collections, as much valuable knowledge could be gained by so doing. In the debate which followed many debatable questions were put to Mr. Black, who answered all to the utmost satisfaction. A hearty vote of thanks was accorded Mr. Black.

FENWICK HORTICULTURAL SOCIETY.

THE annual meeting was held recently, when it was arranged that the annual show should be held on Saturday, September 2. The following office-bearers were also appointed: President, Mr. Alexander Armour, jun., North Lodge, Craufurdland; vice-president, Mr. John Fulton, Spoutmouth; secretary and treasurer, Mr. James Currie, Post Office, together with an influential committee. The arrangement of the industrial department is again entrusted to a committee of ladies.

CARDIFF GARDENERS' ASSOCIATION.

ON Tuesday, the 21st ult., the annual meeting was held at the Sandringham Hotel, Cardiff. Mr. Tom Clarke presided over the largest meeting ever held in the history of the association. The balance-sheet was presented by Mr. T. Malpass, the honorary treasurer, and after a concise report upon the expenditure, stated that there was a cash balance in favour of the association of 9s. 11d., besides outstanding subscriptions which were considered to be secure. The adoption of the balance-sheet was agreed to. The honorary secretary (Mr. John Julian) in his report referred to the pleasure and profit derived from the annual outing, viz., a visit to Messrs. Sutton and Sons, Reading, in which over sixty members participated. Another trip was taken to Mr. J. Basham's, Bassale, where they were shown great hospitality. Special reference was made to the series of instructive lectures which had been delivered by eminent horticulturists. The attendances at the meetings had established a record, which was considered largely due to the hearty co-operation of committee and members, of which Mr. Tom Clarke has proved himself a very able and hard-working chairman. The chairman, in his address to the members, referred to the pleasure it had been to him to have held the office and to find such agreeable unanimity amongst the members, thanking them for their kind support during the session. J. Lynn Thomas, Esq., C.B., F.R.C.S., J.P., was unanimously re-elected president, and the whole list of vice-presidents (with two exceptions) and three names added. The usual resolutions of thanks were passed.

BROUGHTY FERRY HORTICULTURAL ASSOCIATION.

THE monthly meeting was held at Broughty Ferry on the 21st ult., and proved to be one of a most interesting character. Mr. James Slater presided over a good attendance, and the paper of the evening, which was on "The Practical Culture of the Cyclamen," was read by the author, Mr. J. W. Robertson, Letham Grange Gardens. Mr. Robertson's paper was both practical and interesting, and it lost none of its value from the fact that the after-discussion showed that some of the members who took part in it held considerable diversity of opinion regarding various cultural points. This led to the kind offer of Mr. James Simpson to give a prize of a guinea for the best Cyclamens, the plants to be shown next spring, and those proposing to take part in the competition to hand in their names in May next. It is to be hoped that the competition will be a good one, so that the various methods of cultivation may be put to a test. Mr. Robertson was heartily thanked for his excellent paper.

ROYAL HORTICULTURAL SOCIETY.

THERE was a splendid display of plants and flowers at the Royal Horticultural Hall on Tuesday last. Trees, shrubs, hardy flowers, Narcissi, Orchids, indoor flowers, and fruit were all well represented, and combined to produce one of the finest exhibitions yet held in the new hall.

ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, R. Brooman White, de B. Crawshaw, W. B. x-ll, W. H. Young, A. A. McBean, H. G. Morris, W. H. White, J. Charlesworth, James Douglas, Francis Wellesley, R. G. Thwaites, Walter Cobb, Harry J. Veitch, Jeremiah Colman, F. W. Ashton, H. T. Pitt, F. Sander, T. W. Bond, H. J. Chapman, Norman C. Cookson, H. Ballantine, H. Tracy, and J. Wilson Potter.

Baron Schröder, The Dell, Egham (gardener, Mr. Ballantine), sent a splendid lot of *Dendrobiums* in great variety. The plants were very finely flowered. Some of the best were *D. superbum* (rich lilac-rose, with crimson blotches in the throat), *D. wardianum*, *D. nobile elegans*, *D. n. nobiliss*, *D. n. ballianum*, *D. hybridum Rolfeae*, *D. splendissimum*, *D. findleyanum* (yellow throat, pink tipped sepals and petals), *D. schneiderianum*, *D. Edithae*, *D. Ainsworthii*, *D. crassinode barbarianum*, and many more. Several hybrids raised at The Dell were included. The most prized plant in this group of Orchids was *Odontoglossum Pescatorei veitchianum*. The flower is of good form, regularly blotched on the sepals and petals with rich red-violet. The whole stock of this plant is in Baron Schröder's collection. Cut blooms of *Laelio-Cattleya Queen Alexandra* were very fine too. *Cymbidium eburneolum* was represented by a splendid plant, and several good forms of *Odontoglossum crispum* were included. Silver-gilt Flora medal.

The group of Orchids from Norman C. Cookson, Esq., Oakwood, Wyllam-on-Tyne (gardener, Mr. Chapman) contained some very fine *Odontoglossums*. Forms of *O. crispum*, *O. Adrianae*, *O. Pescatorei*, *O. crispum-harryanum*, *O. Crandinei*, *O. crispum Prince Leopold*, heavily and richly blotched with light red upon a cream-white ground; *O. xanthos*, pure white except for the yellow blotched lip; *O. ardentissimum* Sybil, and *O. a. Doris* were among the finest. *Dendrobiums*, *Cypripediums*, and *Laelio-Cattleyas* added variety to this group, which obtained a silver-gilt Flora medal.

The Orchids from Messrs. Sander and Son, St. Albans, contained some good plants of *Laelio-Cattleya blanchleyensis*, *Cymbidium Lowieburnum*, *Celogyne speciosa alba*, with curious drooping yellow-brown sepals, insignificant petals, large expanded labellum, pink in the throat, and white at the apex; *Odontoglossum: crispum* The Milky Way, Phaius Cooksoniae, P. Phoebe, *Laelia pulcherrima*, and others. Silver Banksian medal.

In the group from Messrs. Charlesworth and Co., Heaton, Bradford, *Cattleya Enid* (Mossie x gigas) was remarkably fine, and so, too, were *L.-C. Callistoglossa*, C. Empress Frederick (Mossie x aurea), and *L.-C. dominiana*. *L.-C. Mercia* (*Cattleya Schroderae* x *Laelia flava*) is a pretty flower, with primrose-coloured sepals and petals, and rich yellow lip; and *L.-C. Doris* is a beautiful apricot-coloured flower, the result of crossing *L. harophylla* with *Cattleya Trianae*. *Epi-Laelia Thalia*, *Epi-Laelia Aspasia*, Phaius Norman, and *Odontoglossum harryano-triumphans* were also notably good. Silver Banksian medal.

H. T. Pitt, Esq., Stamford Hill, N. (gardener, Mr. Thurgood), made a very bright display with miscellaneous Orchids, prominent among them being the yellow *Oncidium Concolor*, *Odontoglossums* and *Dendrobiums* in variety, *Cattleya Schroderae*, C. Mendelii formosa, *Cypripedium Mary Beatrice*, and others. Silver-gilt Flora medal.

M. Ch. Vuylsteke, Lochristi, Ghent, exhibited a few of his finely marked hybrid *Odontoglossums*; for instance, *O. amabile*, *O. wilckeanum*, *O. Rolfeae*, *O. Pescatorei*, punctatum, *O. P. wilckeanum*, and *O. harry-crispum*. *Miltonia blueana rosea*, too, was well shown. Vote of thanks.

Messrs. Hugh Low and Co., Enfield, sent a small collection of Orchids, among which were *Cattleya Mozart*, C. Regnellii schilleriana, *Oncidium concolor*, *Masdevallia Pourbaixii*, *Dendrobium Sybil*, *Cymbidium eburneum*, and *Cypripediums*. Vote of thanks.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited *Laelio-Cattleya Schroderae*, *Cymbidium Lowiegrandiflorum*, and *Cypripedium Milo*.

NEW ORCHIDS.

Odontoglossum ardentissimum var. *Laurus*.—This is a handsome, well-formed flower, the sepals and petals blotched with purple-red, and tinged with purple upon a white ground. The lip is of good shape, and marked with yellow beneath the column. From Messrs. James Veitch and Sons, Limited, Chelsea. Award of merit.

Dendrobium Haywoodae.—A large, slightly drooping flower, with sepals and petals tinged at the ends with lilac rose, and widely open lip, orange-brown, and white, and tipped with lilac rose. The throat is black-brown. This fine flower is the result of a cross between *D. splendissimum* and *D. findleyanum*. From Mrs. Haywood, Woodhatch Lodge, Reigate (gardener, Mr. Salter). Award of merit.

Celogyne laurenzana.—This flower has conspicuous pale yellow-brown sepals and inconspicuous petals. The flat lip is white; the throat is marked with rich brown upon a pale yellow ground. From Sir Trevor Lawrence, Bart. (Orchid grower, Mr. White). Award of merit.

Odontoglossum Adrianae var. *aureum*.—A very handsome form of *O. Adrianae*. The ground colour is cream, and is blotched and spotted with chocolate colour. The crinkled edges are yellow. The lip is marked with red upon a dull white ground. From Baron Schröder, The

Dell, Egham (gardener, Mr. Ballantine). Award of merit. *Odontoglossum crispum* Prince Leopold.—One of the finest spotted varieties of *O. crispum*. The ground colour is creamy white, and heavily and regularly blotched on sepals and petals with red. The flower is of good form and very attractive. From N. C. Cookson, Esq., Wyllam-on-Tyne (gardener, Mr. Chapman). Award of merit.

Odontoglossum ardentissimum var. *Sybil*.—A large flower with broad well-formed petals, blotched with purple-red. The sepals are tinged with purple and blotched with purple-red; the lip is large with a broad white base. From N. C. Cookson, Esq. (gardener, Mr. Chapman). Award of merit.

Odontoglossum ardentissimum var. *Doris*.—A striking flower, heavily and irregularly blotched with purple-red, and tinged with purple upon a white ground. From Norman C. Cookson, Esq., Wyllam-on-Tyne. Award of merit.

Celogyne speciosa alba.—This bears a great resemblance to C. lawrenceana shown by Sir Trevor Lawrence, and described above. The throat, however, is quite pink, and the pink tinge, together with the frill, is continued into the base of the lip. Award of merit.

Messrs. Cutshush and Son, Highgate, were given a botanical certificate for *Dendrobium japonicum*.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. A. H. Pearson (chairman), Messrs. Owen Thomas, C. Forster, J. Jacques, J. Willard, F. Q. Lane, Horace J. Wright, H. Parr, Alex. Dean, S. Mortimer, Edwin Beckett, Joseph Cheal, John Lyne, and G. Reynolds. Messrs. J. Cheal and Sons, Crawley, exhibited a "Collection of Apples in Season." Excellent fruits were shown of Lord Derby, Lane's Prince Albert, Bramley's Seedling, Hoary Morning, Wellington, Atalanta (Cheal), Golden Knob (a small russet), Ribston Pippin, Crawley Reinette (new), Vicar of Beighton (rich crimson), Newton Wonder, and others, all apparently in very good condition. Silver Banksian medal.

A Silver Banksian medal was awarded to E. W. Caddick, Esq., Caradoc, Ross, Hereford, for a small collection of Apples, which included very fine Annie Elizabeth (recently strongly recommended in THE GARDEN), Caradoc Scarlet, Schoolmaster, Lane's Prince Albert, Lord Hindlip, Hanwell Souring, Rhode Island Greening, and others.

Various Apples were shown before this committee, but no awards were made.

Some very fine Ailsa Craig Onions were exhibited by Mr. H. Birkenshaw, gardener to Sir Henry Peto, Chedington Court, Crewkerne, Somerset.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. George Nicholson, John Green, R. C. Notcutt, C. J. Salter, C. Bick, J. F. McLeod, W. Cuthbertson, C. R. Fielder, C. Dixon, W. Bain, H. J. Cuthbush, C. E. Pearson, C. E. Shea, W. P. Thomson, E. H. Jenkins, W. J. James, George Paul, R. Wilson Ker, R. Hooper Pearson, W. G. Baker, George Gordon, W. Howe, and J. Jennings.

Choice Daffodils were exhibited by Mr. Charles Dawson, Penzance, who had quite a lot of novelties; Pilgrim Hesperus, Northern Light, Sea King, Amorel, Red Coat Gleam (poeticus), Phantom (a fine bicolor kind) Torch (very good), Firebrand, &c. Silver Banksian medal.

Another choice lot of Narcissus came from Mr. R. Sydenham, in which Excelsior, Golden Bell, and King Alfred were noted, in company with a series of the *Polyantha* Narcissus.

Sir Joslyn Gore Booth, Bart., brought from Sligo a fine lot of Narcissus, quite a representative lot of the best known sorts. We take *Stella superba*, *Albatross*, *Seagull*, *Sir Watkin*, and *M. J. Berkeley* as among the best in this lot. Silver Flora medal.

Three large vases of *Daffodil* King Alfred came from the raiser, Mr. Kendall, Newton Popholeford, Devon. It is a handsome rich yellow kind.

Choice Daffodils in plenty came from Miss Currie, Lismore, Ireland. C. J. Backhouse, King Alfred, Duke of Bedford, Barri conspicua, Snowflake, and Queen of England were all good. *Oritanthe* is an intensely coloured variety of incomparability. Vote of thanks.

A large table was occupied by the *Cyclamens* from the St. George's Nursery Company, Hanwell. The plants were large and well grown, but many were past their best. The strain is a well-known one, and for excellence is hard to beat. Silver Banksian medal.

Roses and Carnations were freely shown by Messrs. J. Ambrose and Son, Cheshunt, who had also a large array of forced Narcissus in variety.

Messrs. James Veitch and Sons had an exhibit of *Rhododendron veitchianum* and *Primula kewensis*.

Messrs. Barr and Sons, Covent Garden, in addition to a choice lot of alpinas, set up an extensive group of Daffodils, such as *Gloria Mundi*, *Glory of Leiden*, *Monarch*, *Phyllis*, *Maximus*, *Lucifer*, *Peach*, *King Alfred*, *White Lady*, *Duke of Bedford*, *White Queen*, *Peter Barr*, and others. Silver Flora medal.

A small, if choice, group of shrubs came from Messrs. Paul and Son, Cheshunt, who also exhibited flowering plants of *Lobelia nicotianifolia*, *Deutzia Buxle Rose*, *D. discolor grandiflora*, and *D. kalmeflora* form a set of very beautiful plants too little known at present. *Anemones* in much variety, *A. Pulsatilla*, *A. fulgens*, *A. St. Brigid*, and others made a most effective display on the white ground as arranged. *Chionodoxas*, too, were very pretty, and, with blue *Anemone blanda*, added their quota to the display. Silver Banksian medal.

Finely-grown Heaths in pots were well shown by Messrs. Cuthush, Highgate.

Messrs. George Jackman and Son, Woking, Surrey, contributed alpinas in pots and pans. *Primulas*, *Iris*

stylosa speciosa, and *Shortia galacifolia* were among the more important. *Epigaea repens* and *Primula farinosa* were also in good flower.

A large group of Tea Rose Warrior came from Messrs. William Paul and Sons, Waltham Cross. The variety is an improved Papa Gontier; this, indeed, being one of the parents of it. As a forcing variety, with good stems and fragrant, shapely flowers, it should become one of the most popular. The cherry carmine tone is very taking. Silver Banksian medal.

A small batch of Malmaison Carnations from Mr. C. Turner were in capital form, Princess May, Lady Rose, and Princess of Wales being the chief kinds; bushy plants and well flowered.

A few well-flowered Hippeastrums were shown by Wilberforce Bryant, Esq., Stoke Park, Slough. One kind, John Seden, a dark crimson with greenish white ribs internally, was of a novel character.

Ranunculus creticus, a yellow-flowered kind from Miss Willmott, Warley Place, is a showy and good plant about 1 foot high.

The Roses from Mr. Mount, Canterbury, were, as usual, a great feature. Such kinds as Ulrich Brunner, Captain Hayward (crimson), Mrs. Laing, Mrs. Edward Mawley, Mrs. Sharman Crawford, and La France were seen to perfection. Silver-gilt Banksian medal.

Violets in baskets were in capital form, and displayed these things to advantage. *Sulphurea* (yellow), Marie Louise, Comte de Brazza (white), and Mrs. J. J. Astor (reddish violet) were among the best. Mrs. Rills House, West Grinstead Park (gardener, Mr. Smith), was the exhibitor. Bronze Flora medal.

The zonal Pelargoniums from Swanley were a great feature, colour, frusses, and individual blossoms alike commanding attention. The decorative Pelargonium *Purity* and vases of the *Starry Cinerarias* were also freely shown. Silver-gilt Banksian medal.

Mr. G. Reuthe, Keston, Kent, in a pretty lot of alpinas showed *Androsaces*, *Hepaticas*, many *Saxifrages*, *Chionodoxas* in variety, *Primula rosea*, several *Megaseas*, the intense blue of the *Chilian Tecophilaea cyanocrocus*, *Lenten Roses*, &c. A very large mass of *Lathraea purpurea* was also noted in this group.

Messrs. E. Wallace and Co., Colchester, had a small group of early-flowering things, in which *Thalictrum anemonoides* and *Arabis aubrietioides* were conspicuous. A perpetual-flowering *Viola*, *V. cornuta Papilio*, with dark blue flowers, was very showy.

The Misses Hopkins, Mere, Knutsford, Cheshire, contributed a pretty group, in which *Primroses* were a feature, with *Polyanthus*, &c. We noted the double crimson *Primrose* and *P. elatior caerulea* were very good. *Daisy Alice* was very pretty. A very curious *Polyanthus*, with green leafage surrounding the dark flowers, was named *Pantaloon*. Bronze Banksian medal.

Messrs. Cripps and Sons, Tunbridge Wells, contributed a group of *Acers* and *Rogersia cordata*, the latter with charming trusses of pink *Ixora*-like flowers in terminal heads. It is one of the old neglected stove-flowering plants, too rarely seen at the present time. Bronze Flora medal.

A capital stand of *Azalea mollis* and its varieties came from Messrs. R. and G. Cuthbert, Southgate. The exhibit chiefly was made up of the hybrid and cross-bred forms of *A. mollis*, *A. rustica*, and others. *Gloire de Belgique*, *Prince Badouin*, and *Charles Rogier* were among the best. *Cytisus purpureus incarnatus* was well shown in groups. Silver Flora medal.

A very beautiful lot of *Cyclamen persicum* came from Mr. John May, St. Margaret's, Twickenham. Some 150 plants, perfect in every detail, were shown. The intense crimson-lake *Excelsior* is a wonderful variety not only in colour, it is equally good in vigour and freedom. Silver-gilt Flora medal.

A very beautiful lot of alpinas came from Messrs. Cuthbush and Sons, Highgate. We noted *Primula nivalis*, *P. denticulata alba*, masses of *Hepaticas* in variety, *Epigaea repens*, *Shortia galacifolia*, *Arnebia echioides*, *Iris Eggari* and *I. Saari*, of the cushion section, *Primula rosea* (very pretty), with *Daffodils* and rock shrubs in flower in much variety. Silver-gilt Flora medal.

Pyrus Malus Scheideckeri grown as standards and flowering well were a feature as exhibited by Messrs. Veitch and Sons, Limited, Chelsea. The pretty plants were 5 feet or more in height, and in this way lend themselves admirably to decoration. *Coryopsis pauciflora* and *Hydrangea Hortensis rosea* were also noted, the latter very nicely coloured.

NEW PLANTS.

Crinum Rattrayi.—A very handsome species from Uganda, producing a tall scape with open, campanulate flowers some 6 inches across. It is a noble plant of much merit. From Sir Trevor Lawrence, Bart., Dorking. Award of merit.

Carnation Flamingo (Tree).—This is one of the famous American-raised kinds, the large flowers of a scarlet-crimson shade. Shown by Messrs. Ambrose and Son, Cheshunt. Award of merit.

Erica wilmoreana grandiflora.—A variety with larger tubular flowers of a somewhat looser style of growth as compared with the type. This increased size of flower is seen to advantage in the large spikes, which are freely produced, even in quite small plants. From Messrs. Cuthbush and Son, Highgate. Award of merit.

Crocus angustifolia.—A very pretty plant, with pink starry-shaped blossoms on a long graceful shoot, giving a light, elegant appearance. From Messrs. Veitch and Sons, Limited. Award of merit.

Narcissus Ariadne.—A Leedsii, with large, widely expanded flat or saucer-like crown, beautifully crimped at the margin. Shown by Messrs. Barr and Sons, Covent Garden. Award of merit.

THE GARDEN

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FOR AND AGAINST THE ALPINE HOUSE.

REFERENCE is often made nowadays to the alpine house, and the argument has lately been brought forward that since alpine plants are perfectly hardy the principle involved in growing them under glass must be entirely wrong, being harmful to the plants, and that, on this account, such a type of gardening should not be encouraged. Probably there is a good deal of misapprehension abroad as to the intention and use of an alpine house, which it would be well, if possible, to clear up.

To begin with, the alpine house, where it exists, is not used for the cultivation of these hardy plants at all, but is merely intended for the convenience and pleasure of their less hardy owners when the plants are in flower. Like all other glass structures for gardening purposes, it is a witness, no doubt, to the luxury of the age we live in. Yet an unheated greenhouse is an indulgence within the reach of many an amateur who is debarred, by exigencies of health and purse alike, from the pleasures of more elaborate plant houses.

To call such a house an alpine conservatory, were it not for the pretention of the title, would perhaps better explain its purpose. As far as the alpinists themselves are concerned, the main use of it is simply to protect their fragile flowers from the constant alternations of temperature to which they are unaccustomed, yet which are inseparable from a variable climate like our own. In their native habitats alpine plants are protected by a blanket of snow, and are completely at rest, or, at most, moving very slowly under that snug covering until it melts in the spring, when they burst into bloom without further let or hindrance. The very mildness of our climate subjects them, hardy as they are, to severer trials than they are ever called upon to endure at home. Some of them—mainly such as are not amongst the earliest to flower—can brave these trials with impunity, and are little the worse for alternate freezing and thawing. Others are quite unable to cope with such constant changes, consequently their flowers are ruined; and others, again, cannot be grown at all without some sheltering contrivance like

a pane of glass to keep them dry. Hundreds, however, as we know, grow with the utmost freedom out of doors without protection of any kind, and generally by the time many of these are in flower the weather is genial enough to permit even delicate persons to enjoy them in the open air. But there are others which naturally flower so early that, if the plants themselves should pass unscathed through the winter storms, their owners are not so happy, and can scarcely hope to have the pleasure of seeing them at their best. Many of the later-flowering species, besides, may be induced to flower a month earlier if grown in pans plunged out of doors in raised beds and slightly protected with mats on occasion, or placed in cold frames which can be kept open or closed at will. Never, of course, under any circumstances would such plants be coddled by being grown under glass all the year round, but as soon as any of them begin to show flower, where there is the accommodation of an unheated greenhouse, they can be removed into it, and will give intense pleasure to those who cannot face the inclemencies of a damp English winter in the open garden. Many of these minute gems of the mountains can thus be brought nearer to the eye and receive the examination they deserve. Not unfrequently some have been found to thrive better under such conditions than in their native wilds, and many a bedraggled and slug-eaten alpine would plead, could it only speak, for the protection of its wonted snows or some equivalent, so that it might live out its little life in peace.

In Scotland alpinists are more easily grown than in the south, and it is possible that the want of an alpine house might be less felt at Edinburgh than in some parts of Devon or Kent. The advantage of such an addition to a garden, however, is well illustrated at Kew, where it is generally thronged, and the student of plants can pass from the alpine house, filled with specimens of hardy plants in full beauty, say in February and March, into the thoroughly well managed rock garden outside, and there take note of the difference in the same species under diverse conditions. The frame and the alpine house hasten the delights of spring, while the rockery and open border will carry them on and prolong the season, all too short, in which they can be enjoyed.

Gardening has its many phases. We can scarcely say of that one or this, that it is utterly wrong and absurd, though we may not altogether approve. Everyone holds his own opinion dear, and there are more sides than one to a question. In advocating the use of the alpine house, the last thing we should wish to advise is the growing of this class of hardy plant permanently under glass, for it stands to reason that their cultivation, if it is to be successful, must needs be out of doors for the greater part of the year. All that is recommended is the adaptation under certain circumstances of some such shelter—to be applied only when absolutely necessary—as may protect the flowers which naturally open in the winter, and to help forward others that with slight covering may be induced to bloom abnormally early. By this means the first and dullest months of the year may be cheered by hardy plants in fresh and undamaged bloom, which can be grown with a minimum of expense, and enjoyed by the most delicate people, without the risk which often attends even a short time spent in the enervating atmosphere of a heated greenhouse.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, London.

MAGNOLIA KOBUS.

Messrs. R. Veitch and Son of Exeter send flowers of the pretty *Magnolia Kobus*, with the following note: "A very rapid-growing species, small plants introduced from Japan some seven or eight years since having attained the height of 12 feet to 14 feet in spite of their being regularly transplanted. Blooming but sparsely during previous years, the plants are now covered with flowers. Evidently it is free-flowering, and will make a handsome tree. The first of the *Magnolias* to open is conspicuous (true) or *Yulan*, which is pure white and now in full bloom, followed by *soulangiana*, *speciosa*, *Norberti*, and *rustica*

rubra. All the Magnolias excepting stellata, which is later, are earlier than usual this season."

[M. Kobus has pure white flowers, sweetly scented, and star-like in shape. A very welcome shrub.—Ed.]

BRITISH AND AMERICAN APPLES.

Mr. J. Woolford, Wokefield Park Gardens, Berks, writes: "The correspondence under the above heading is interesting. With this letter I am sending you a few Cox's Orange Pippin that you may sample at this late date. It is not to be expected that they are so good as they were some few weeks since, but we consider their season is only just past. I find a good deal depends on the storage of Apples. No matter how good a crop you may have on your trees, if they are not stored properly the season will be short. The very fine season of last year was, with us, conducive to the longer keeping of many of the late varieties of Apples. Perhaps Mr. Engleheart retains pleasant memories of the very fine-flavoured Newtown Pippin there were on the market the two previous seasons. I obtained some very good ones, which altogether changed my opinion of Newtown Pippin as I had known it previously, and anyone who tasted similar ones would not, I am sure, declare them to be 'dry, chippy, and tasteless.'"

[The Cox's Orange Pippin sent by Mr. Woolford were very good indeed, and had lost little of their characteristic flavour. They were also of most attractive appearance.—Ed.]

APPLES NORFOLK BEAUFIN AND ANNIE ELIZABETH.

From Cole Orton Hall Gardens, Ashby-de-la-Zouch, Mr. H. Wilson, jun., sends fruits of these two Apples, with the following note: "I am sending for your inspection two valuable late Apples, Annie Elizabeth and Norfolk Beaufin. Both varieties are as sound as the day they were gathered, and we hope to have a good supply until the middle of May. Annie Elizabeth I have seen in other parts of the country, and it has always proved to be a very reliable bearer and an excellent keeper. It does well in stiff soils."

[The fruits kindly sent by Mr. Wilson were quite fresh and firm. They had not deteriorated the least in appearance. We thought Norfolk Beaufin to be the better flavoured; it was quite juicy and refreshing, while Annie Elizabeth was rather dry.—Ed.]

PRIZES FOR GARDENERS. APRIL.

FRUIT TREES IN POTS.

A First Prize of FOUR GUINEAS,

A Second Prize of TWO GUINEAS,

A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA

will be given for the best answers to the questions published below.

This competition is open to all professional gardeners. Replies must be addressed to the Editor of THE GARDEN, 3-5, Southampton Street, Strand, London, W.C., marked "Competition," and must reach this office not later than May 1.

I.—Do you consider annual repotting to be beneficial to fruit trees in pots or not?

II.—When should fruit trees in pots (not hard forced) be repotted? Give the ingredients of what you would consider to be an ideal soil. What is likely to occur after potting if proper precautions are not taken?

III.—When would you prune Peach and Nectarine trees in pots; describe the method you would adopt.

IV.—What is the average life of a pot fruit tree when properly grown? Complaints are often made that pot fruit trees quickly deteriorate. Why is this? Describe the best method of restoring the trees to health.

V.—Give the best six varieties for pot culture of Peaches, Plums, and Cherries, and the best three varieties of Figs and Nectarines. Say which you consider to be the best one in each case.

VI.—In order to have pot-grown fruits of Cherries, Plums, Peaches, and Figs ripe by the middle of May, say when you would start the trees, and give the temperatures for each fortnight until the fruits are ripe.

VII.—What is the best chemical manure for Cherries, Plums, and Peaches? (Special concentrated manures must not be mentioned.) Say why it is the best.

VIII.—What is the proper treatment for trees after forcing?

PRIZES OPEN TO ALL.

PLAN OF A FLOWER BORDER.

A FIRST PRIZE of *Five Guineas* and a second prize of *Two Guineas* are offered for the best plan of a border of hardy perennials, 130 feet long by 10 feet wide, drawn to a scale of a quarter of an inch to a foot; bold grouping and good arrangement for colour and succession to be the main considerations. Half-hardy annuals and biennials may be included. The names of the plants to be written in their spaces on the plan—not referred to by letter or number. This competition remains open until the last day in September.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

April 6.—Royal Horticultural Society of Ireland's Show at Dublin.

April 11.—Royal Horticultural Society's meeting; Devon Daffodil Show at Exeter (two days); Brighton Spring Show (two days).

April 19.—Royal Botanic Society's Exhibition.

April 25.—Royal Horticultural Society's meeting; Chesterfield Flower Show.

A Coloured Plate of the Darwin Tulip Clara Butt will be given with THE GARDEN next week.

Royal Horticultural Society.—At a general meeting of Fellows held on the 28th ult. a paper by Mr. Frank Pink was read on "Bananas from a Commercial Point of View," in the course of which he pointed out that until about four years ago the monopoly of the Banana business was held by the Canary Islands, since when the West Indian trade in the fruit has been most successfully encouraged by the Government giving a subsidy for a direct line of steamers running to and from Jamaica, and bringing over every fortnight not less than 20,000 bunches. Other lines now run steamers specially equipped for this purpose and without subsidies. The lecturer then described the different varieties met with on the market, including the Musa Cavendishii, the Gros Michael, and the Claret. The methods of collecting, shipping, and transport were described, and special reference was made to the fostering care exercised on the trade by the Imperial Department of Agriculture in the West Indies. The next of the society's fortnightly exhibitions and meetings will be held

on Tuesday next, when a lecture will be delivered by Mr. T. J. Powell on "Retarded Potatoes."

British Gardeners' Association.

There was a large attendance of members of the Kingston Gardeners' Society and others at the British Gardeners' Association's meeting promoted by the society, and held at the Fife Hall, Kingston, on Friday, the 24th ult., Mr. E. H. Jenkins presiding. In the course of his address, Mr. W. Watson, the secretary of the association, said that the need for a gardeners' association was universally admitted, and that the lines upon which it was proposed that the British Gardeners' Association should be worked appeared to be generally approved. Why, then, was there not already an active and powerful association working in the interest of the gardener, as there was now, he believed, for every other craftsman with success? It was due to faintheartedness, and to a far too general disposition to let the other fellow take the initiative and do the work. He reminded the audience that whilst it was impossible for the members of the committee themselves to bring about reform, he was certain that it lay within the power of gardeners as a body to do so. Although the response to the committee's appeal for members and for money could not be called great, it had been enough to ensure the launching of the association upon the projected lines, and the interest and support given to the association were steadily increasing. He appealed to those present to form a distinct branch of the association. Mr. Jenkins and Mr. A. Deau having spoken in praise of the objects of the British Gardeners' Association, and in favour of the formation of a Kingston branch, Mr. J. T. Blencoe (secretary of the Kingston society) expressed himself aware of the need for a gardeners' association, but on the grounds that gardening was a luxury he was sceptical about the possibility of gardeners obtaining fairer treatment. The proposal to form a local branch was discussed, and finally it was decided that a second meeting should be held further to consider the matter.

The new buildings for the Edinburgh Parks.

—At a meeting of the Edinburgh Town Council, held on the 21st ult., the proposals of the parks committee regarding pavilions, &c., at Saughton Park, West Princes Street Gardens, and Regent Road Bowling Green, were approved of in principle, and it was remitted to the committee to submit sketch plans and a probable estimate at the next meeting. It was also agreed to add to the permanent staff, on account of the new Saughton Park, a foreman at £1 12s., a ticket officer at £1 2s., a park officer at £1 2s., a green-keeper at £1 2s., and two labourers at £1 1s., all per week. At the same meeting, notice was given of a motion that it be remitted to the parks committee to consider and report as to negotiating for a lease of the ground at Redbraes as a public park and recreation ground.

Bullfinch in the garden.

—I hoped that someone more able than myself would say a good word for the poor bullfinch. Perhaps many felt like I did after reading the story of the old tree bearing so abundantly that it fell down, that it was a pity not to have thinned the fruit for the sake of the bullfinch. I am sorry to say I have shot them, but always felt sorry to do so; for years I would have done all I could for them, if they would only leave us a crop of fruit. As "E. K. R.," who we all know would not have found them guilty could he have done otherwise, says, to see them during the dull winter months is quite enough to help us to try something other than the gun to save our buds. I had the most amusing of bullfinches once, brought up in the garden shed, very often on Strawberries; he never forgot the taste of them. That they like the young buds of Almonds and Peaches, as well as Snowy Mespilus, I cannot deny.—A. J. K., Breconshire.

Melanthus major flowering.—A fine specimen of this beautiful subtropical plant is now in full bloom in the garden of Mrs. Saunders-Knox-Gore at Ardmore, Torquay. This plant has stood in its present position for some years, but has not previously fully developed its flowers, owing partly, it is believed, to its being somewhat shaded by a large tree growing near. This has recently been removed, much to its advantage. For it has this year developed many fine spikes of its curious and interesting flowers. It is, I believe, a rare occurrence for this noble plant to flower in the open, and speaks much for the mildness of the climate of Torquay. It would be interesting to know if any other reader has had similar experience with this lovely subtropical.—J. MADDEN, *Torquay*.

Horticultural College, Swanley. The annual report for 1904 states that the year opened with sixty-three students, including three scholars from the Kent and one from the Staffs County Councils. Numerous posts were gained by students during the year. In the eighteen months' initial work now under review some twenty-five students have been trained. Our trained students may be found as housewives on Canadian ranches and African farms, and we need hardly point out the value of practical training to girls taking up housekeeping in Colonial country districts. Full particulars of this gardening college for girls may be had from the Principal, Swanley College, Kent.

A beautiful Hepatica.—I am enclosing blooms and a leaf of the rarest and most vigorous of all the choicer forms of *Hepatica*, and in my opinion the most beautiful, viz., *Hepatica acutiloba plena*. It differs from the ordinary double blue in producing larger flowers of a much deeper colour. It is taller and altogether a better grower. Its foliage also is quite distinct. We sold a few plants some ten or twelve years ago, and have only now succeeded in getting a stock. It is apparently a very old plant, but it has never been plentiful.—J. STORMONTH, *Kirkbride, Carlisle*. [A very beautiful rich blue flower.—Ed.]

Orchids at Woodhatch, Reigate. The collection of Orchids at the residence of Mrs. T. B. Haywood, Reigate, has long been a very fine one. The collection of *Dendrobiums* has been pronounced by capable growers to be one of the best they had seen. That must be the verdict of all who visit Woodhatch. The plants are arranged on stages on each side of the path that runs through the centre of two long lean-to houses, and the vista of beauty that arrests the eye so soon as the end door is opened is, indeed, striking. Mr. Salter, the grower, invariably succeeds in getting surprising growths on his *Dendrobiums*, the stems stout as whip-handles, and running up to from 3 feet to 4 feet in height, the foliage both luxuriant and healthy. This is the result of common treatment, for the suggestion that such growths are due to some special manurial aid is denied firmly. The plants vary in size from seedlings in small pots to many carrying several tall stems literally long spikes of bloom in 9-inch pots, and without doubt could the whole body of plants be presented in a group at the Vincent Square hall it would be regarded as one of the finest of this section of Orchids ever seen there. The houses are lean-to, and the stages trellised and open. The plants in most cases are elevated on to other and inverted pots, and the aim of the grower seems to be to give them all light and air possible, whilst moisture is very moderate. Mr. Salter has raised numerous very fine seedlings, amongst which are Mrs. T. B. Haywood, flowers very large and deep coloured; *Gloriosum*, form of *melanodiscus*, also *melanodiscus giganteum*; M. Salteri, very charming, delicately tinted; *Ainsworthi picturatum*, *Hildebrandti Wardii*, the beautiful Woodhatch variety of *Ainsworthi*; *Rubens*, a variety of *purpurascens*; *Ainsworthi Virgil*, and many

others. Description fails to do justice to the collection, and to fully appreciate it it should be seen when at its best. Certainly *Dendrobiums* are grown at Woodhatch in a manner rarely excelled. Of course there is a large collection of other Orchids, also *Phalenopsis*, *Laelias*, *Cattleyas*, *Odontoglossums*, *Cypripediums* in great variety, some fine seedlings, &c. In a tiny basket was a plant carrying fifteen spikes of bright yellow flowers of *Oncidium cheiroporum*, a very charming Orchid, and offering to suspended pans of *Sophranitis grandiflora* in full flower, and to great numbers of pots of the white spathed *Masdevallia tovarensis*, a marked and pleasing contrast. Herbaceous *Calceolarias* will be a superb show a few weeks hence, fully 100 plants in 9-inch pots coming on in luxuriant health and cleanness. *Cyclamens* also are remarkably good indeed, unusually so for a private place, the strain being of the finest quality. Suspended plants of *Begonia Gloire de Lorraine* that have bloomed all the winter are still masses of bloom.—A. D.

Fasciation in Daffodils.—Last year I sent a photograph of a fasciated stem of *N. pallidus præcox*, with three flowers joined together, which appeared in THE GARDEN of April 16, 1904. There must be something uncanny about this particular bulb, for this spring, in addition to one or two normal flowers, it has sent up two fasciated stems, one with two and the other with no less than six blooms in a head! The flowers are all small compared to the ordinary ones, but they are all perfect. An adjoining bulb has two flowers on a stem of full size. A bulb of *N. cernuus* in an adjacent border last year also sported and carried a head of four flowers and one or two rudimentary leaves among them, but it shows no sign of any further fasciation this spring.—S. G. REID.

A new Orchid from New Guinea. The *Australian Garden and Field* gives particulars of a new *Dendrobium* discovered in New Guinea by an amateur, Mr. E. B. Cox of Walkerville. Among other plants from New Guinea was an Orchid which Mr. Cox could not identify. It was eventually submitted to Mr. Guilfoyle, director of the Melbourne Botanic Gardens, who wrote: "The New Guinea Orchid is undoubtedly a *Dendrobium*, but has never yet been described. To make certain about it I submitted it to Mr. F. Manson Bailey, the Government botanist of Queensland, who has had opportunities for studying the botany of New Guinea, and, in agreeing with me as to the genus, suggests the specific name of *fasciculatum*, which I think a very good one, as the flowers are in a dense bundle of bracts. The plant is one more addition to the 375 *Dendrobiums* known and described."

Garrya elliptica.—The illustration in THE GARDEN recently of this useful shrub was charming, and should do much to induce many to plant it. It is far more hardy than is generally thought. If planted in a suitable position we find it quite as hardy as *Laurustinus*. In cold, bleak districts it is advisable to plant it against a west wall, but in most gardens in the south and west it may be grown as a bush. We have it in this way, and the plants have been in their present position for twenty years. During that time they have only once been damaged by frost. Last year one of these plants made growths 3 feet long, and with catkins nearly 1 foot long. It is growing in an open bed in a position somewhat sheltered by tall trees, but in by no means a good soil—it has to share the same as other shrubs. Many errors arise in growing these shrubs, from planting them in rich soil and a very sheltered spot, where growth is rapid and very soft; they cannot then endure severe cold like those growing on higher ground and in poorer soil. In our grounds *Laurustinus*, *Arbutus*, and *Buddleia globosa* suffer far more where growing in the former than in the latter position. We have very large bushes of *Laurustinus* growing

under Silver Fir trees, and they flower freely every year. Some years ago I saw large bushes of *Garrya elliptica* at Nettlecomb Court, near Taunton. Few things are more handsome in winter than the long catkins of the male plant. Evidently many are unacquainted with it. Early in the year a florist who had exhibited fine sprays at the Horticultural Hall, together with early-flowering bulbs, told me that it attracted more attention than the other flowers, and many enquired about it. In a cut state I have found it most useful used either alone or mixed with the winter *Jasminum*.—J. CROOK.

Plumbago capensis.—When inspecting in the months of July and August gardens and greenhouses in the congested districts in the East End of London, it was not unusual to find well-grown plants of this *Plumbago* flowering well. The healthiest and best-managed plants were found in houses which had the roofs kept free from smoke and dust deposits. Occasionally the white variety would be met with. In gardens the *Plumbago* lends itself to use in various ways, as it will flower all the summer, and all the winter also in a greenhouse, if properly cared for. It also makes a charming bed in the open in summer. It can be propagated by cuttings made of the side shoots of half-ripened wood, or from root cuttings. They can be struck in spring or autumn if inserted in a propagating case, in which they will root in two or three weeks. Pot into 3-inch pots, and keep in heat until they have made roots freely. In a compost of fibrous loam, well decomposed manure, and sand the potted plants will do well. I have seen it very effective in large vases in the open with *Fuchsias*, *Abutilons*, *Ivy-leaf Pelargoniums*, &c. It also makes a very pleasing pillar plant for isolating on a lawn.—R. D.

ENGLISH v. AMERICAN APPLES.

IN reply to Mr. E. Burrell respecting our opinion and experience of Apple Gravenstein, "Whether it should be eaten direct from the tree, or picked and stored for three weeks or more so as to have the full benefit of its real flavour," it places us in a similar position to the boy who was asked which of two little girls he liked best, and he replied, "I like them both," and so for the time being solved the problem to the entire satisfaction of his fair questioners. We recommend this variety of Apple both ways, but so much depends on the individual taste. Our own experience, and to those who possess good teeth to enjoy a Gravenstein, is that it must be picked from the tree and eaten at once. A more delicious Apple it would then be difficult to find. We hold that the question of taste of Apples is a very wide and varied one to be settled, either by a certain individual or by a selected committee, without a lot of derision. The human palate is very elastic, and somewhat, like fashions, varied in the extreme. How often you will see (simply to illustrate the peculiarities of people's tastes) persons eating green Peas freshly gathered from the haulm and enjoy them, yet when boiled and placed on the table they will pass them by almost, as it were, in disgust; then how is it possible to judge the taste of the multitude? Then, again, we have proved, and conclusively so, the same Apple, even the Gravenstein, grown by us in one plantation that consists of one kind of soil, and then cultivated in another almost opposite in its composition, the flavour has hardly been the same, hence a good variety will often be brought into bad repute in consequence. If this is not so, how is it, of the many new varieties that have received an award of merit or a first-class certificate by the fruit committee of the Royal Horticultural Society, so few come to the fore. They are short-lived, simply because the person who exhibits his seedling or seedlings has

a soil that suits those particular sorts and gives them the flavour we are seeking for, but when the same varieties are grown in a soil different to that of their childhood they fail to produce that peculiar taste that induced the committee experts to give the coveted card awarded to them. The poor nurserymen are therefore burdened at the present moment with almost double the number of Apples than there is any occasion for, and from this the question arises, should they not have been tried elsewhere before their decision was confirmed? We are of the opinion that it would do the fruit committee of the Royal Horticultural Society and likewise the council more honour, and they would be more appreciated by all fruit growers of the kingdom, instead of discussing and trying to set up a code when Apples are in and out of season, to ascertain what soils suit certain Apples, so that the true flavour may be obtained and enjoyed to perfection. We are aware it would take some time and trouble. Let the society send a full list of sorts to all the best growers throughout the country, requesting them to mark those that they found did well with them, stating soil, and likewise sending samples for tasting. Why not let it be one of the leading features at the next fruit show in October, and thereby thin out many of the varieties which are fastidious as to soil. Variety and not flavour will often carry an exhibitor to victory in competition, even if his opponent has better fruit. How often do we hear, "But look at So-and-so, see how many kinds he is showing," and probably inferior kinds will decide the points. If these suggestions were only taken up they would confer a national boon to all fruit growers. Let us ask, then, how many varieties do our Colonial friends cultivate? Ten to fifteen, and those they know by past experience suit their soils and climate, hence their present success. If this were done here we have every reason to believe the tables would be turned, and those recommended by the society planted largely. Nowhere can Apples be so well grown as in England. England is the home of the Apple, especially when grafted on the broad-leaved English Paradise (not all).

HENRY CANNELL AND SONS.

IN view of the discussion in your paper on "American v. English Apples," I send you here-with three fruits of Cox's Orange Pippin—certainly they are my three last, but it is March 20. I have been supplying the table with them up to within a few days. I gathered them when they refused to hang any longer, and I store them in heaps in an ordinary brick outhouse with slate roof. I do not know whether it is a generally approved method, but I always allow my Apples to "sweat" in heaps or boxes out of doors before putting them in store, treat them, in fact, the same as roots or hay.—THOMAS BUTLER (gardener to J. A. Scrimgeour, Esq., Gatton Cottage, Reigate).

[The fruits were of delicious flavour, though wanting in juiciness. A very welcome Apple even so late.—ED.]

LIVING in an Apple county I am greatly interested in the letters now appearing in THE GARDEN respecting English and American Apples. One view of the matter seems to me to be quite overlooked. Foreign fruit the public can easily get, English they cannot. The Americans appear to have about two sort of Apples that crop regularly, the growers know well how to store them, grade them, and put them on the market where they can be readily bought from half a pound to a ton. The English have a multiplicity of sorts with names as familiar as household words, but the trees crop irregularly, and the fruit itself in a good condition is as scarce to the general public as rare Orchids.

My garden is small, but last autumn I thought I would plant a dozen Apples trees. After consulting friends, catalogues, and fruit manuals, I

chose certain kinds, but it was certainly a "hit or miss" "happy-go-lucky" sort of a choice, because I lacked the very thing essential to make a choice, that is, a tasting sample of the different Apples. I am a great eater of Apples, both raw and cooked. Tastes differ, so do teeth. My taste and teeth, after fifty years service, prefer a good hard, juicy Apple, and my favourite for eating is Margil or Pearson's Plate, and for cooking Cox's Pomona. Perhaps some one will kindly tell me whether I can improve on those chosen. Blenheims I care little for, Cox's and Ribstons are very good indeed when well grown, and Beauty of Bath eaten from the tree is a nice Apple.

With regard to Gravenstein I am inclined to agree with Mr. Burrell, "there must be two kinds," for a neighbour of mine has had this Apple in his garden for thirty years under the name (local) of Lady's Finger. With him it is a summer Apple, fairly good to eat from the tree. The fruit is long and narrow at the top, yellow, slightly striped with red in colour, but I have never found in it either early or late that "rich vinous and powerful aromatic flavour" spoken of by Dr. Hogg. The most practical result of this Apple discussion would be for the Apple growers to take a leaf from the book of the Potato growers. Potatoes of all kinds, true to name, can now be purchased with ease in large or small quantities, but English Apples and Pears, so far as I know, cannot. Why cannot the public be supplied with named specimen Apples and Pears in boxes when the fruit is really in season? The price of a box might be half-a-crown and upwards according to the weight of fruit it contained. After tasting the fruit, cropping qualities, growth of tree, and nature of stock could easily be adjusted.

Salop.

VELD.

THE ROSE GARDEN.

A WINTER ROSE GARDEN.

AMONG the many delights of a sojourn upon the Riviera during the winter months are the abundance of the Roses. We who are obliged to stay here catch a breath of their sweet fragrance as we pass the florists' shops or saunter through Covent Garden. Now, why cannot we have Rose gardens under glass in midwinter? Of course, Roses are forced abundantly in our large establishments, but I have not heard of any attempt to have anything like the summer rosery. Given a suitable structure, it would be quite possible to have pillars of Roses, arches of Roses, standards with fine heads, and bushes of wonderful development. What a delight it would be to step into such a winter rosery upon a cold frosty morning and to admire the charming tints of the varied foliage and the still more charming buds and blossoms!

A structure such as I should advocate would be one central dome-like building with five or six smaller houses leading from it. Tall weeping standards could occupy the central bed, with fine fast-growing climbers flinging their wreaths of blossom from the roof overhead. Here and there pillar Roses could be planted together with half standards and bushes. Instead of the usual doors to the structures leading from the central one I would plant arches of Roses. Under the management of a skilled Rose grower such a Rose garden would be a beautiful feature. The glorious Tea Roses develop in four or five years into huge bushes fully 5 feet high and as much through, and what grand headed standards one could obtain; for here there would be no blighting by cruel frost, so that we could have our Comtesse de Nadaillac and Souvenir d'Elise Vardons in fine style. I would urge that the Roses be planted out. They succeed so much better, and it is no trouble where expense is not considered to thoroughly trench and prepare the

borders for the plants. As to the plants to employ, no doubt pot-grown are the best. Those splendid well-ripened plants usually supplied in 8-inch pots would furnish the house at once with some good material. If standards are not procurable they could be potted up a year in advance and grown outdoors the first season. Such plants when established succeed so much better than plants that are obtained from the open ground. Residents near large cities would find this method of Rose culture a great boon, as they are debarred from growing this lovely flower successfully outdoors.

I shall not give a list of varieties. Even the commonest Rose has a special beauty under glass, but I would say let the Roses be mainly Teas and Hybrid Teas. From these tribes, together with the delightful monthlies and Polyantha Roses, a succession of blossom may be obtained in May and again in late autumn. Hybrid Perpetuals of the vivid-coloured kinds should not be overlooked, but as they grow best by themselves, pot plants of these could be brought on in pits and plunged when in bloom among the Teas and Hybrid Teas. Or one of the sections could be given up to this tribe, growing them under steadier conditions than the Teas require. If possible have the roof of the structures removable in order to take advantage of the summer weather and rains.

P.

NOTES ON HARDY PLANTS.

THE BRODIEAS.

THOSE readers of THE GARDEN who have warm and sunny borders in their gardens, or hot, dry positions and very sandy soil not suited to herbaceous plants, will find Brodiaeas of much use. The plants should be grown in colonies or groups, where on the let-alone principle they may be allowed to remain for some years to increase. The sunniest border in the garden will be found the best place for them, and in which, for the sake of safety, they should be planted somewhat deeper than is usual for most bulbous plants. Not a few of these pretty flowering plants were grown formerly in the old parsonage garden at Ryde, where the late Rev. H. Ewbank soon found that many of them were much at home in this very sunny garden. Not only so, but the border soil, where many interesting bulbs were grown, was very sandy, and suited the Brodiaeas admirably. Early autumn is the best time for planting, and the uniform depth of 6 inches should be adopted. In those gardens where the soil is heavy a good supply of grit or sand should be added to the staple, and if necessary rough material below to ensure perfect drainage. The following are among the most distinct:

B. coccinea (Brevoortia).—Perhaps the most striking member of the genus. The crimson-scarlet tubular flowers are not unlike in external appearance those of the hard-wooded *Correa cardinalis*. The wiry stems, 2 feet or more high, terminate with a head of the drooping tubular blossoms, and are most effective. Native of California, and known as the Crimson-satin Flower. May—June.

B. capitata.—This has stems 2 feet high, carrying a dense umbel of violet-coloured flowers. Hardy and early flowering. There is a white form of this in cultivation. North-west America.

B. Howelli.—A very beautiful kind, with large umbels of blue and white flowers. *B. H. lilacina* is a charming variety, the soft blue, white-tipped flowers usually command attention. Oregon, &c.

B. irioides (*Calliprora lutea*).—A dwarf species 6 inches or 9 inches high, producing pale yellow starry flowers with considerable profusion in June and July. *B. i. erecta* and *B. i.*

splendens are yellow-flowered varieties of distinct shades. A capital pot or border plant. North California.

B. laxa.—A well-known plant, attaining 1½ feet to 2 feet high, the tubular flowers of a bluish purple hue and freely produced in a large umbel. California.

B. uniflora is better known as *Triteleia uniflora*. It is a well-known plant, and has several pretty varieties.

B. congesta, *B. grandiflora*, and *B. Hendersoni* are also meritorious kinds, having blue or violet-coloured flowers.

B. lactea is pretty, the milk white flowers ribbed with green, and abundantly produced in umbels. *B. l. lilacina*, with white-lilac suffused flowers, is an improved form.

B. volubilis.—A plant of climbing or rather twining habit, the scape reaching from 3 feet to 10 feet in length, and producing rose-coloured flowers in closely arranged umbels. This species is less hardy than some, and should receive protection. California. E. J.

IRIS GALATICA.

THIS interesting little species is a member of the *Juno* section of the genus, which includes many

from that part of the world, it forms an interesting addition to the already large number of bulbous plants from Asia Minor. The colour of the flower varies from greenish yellow to silver grey, suffused to some extent with purple, and with deeper purple falls. A distinct feature, which is also possessed by others of this group, is the white margins of the leaves.

Kew.

W. IRVING.

SAXIFRAGA KOTSCHYL.

ANOTHER rare and pretty early spring flowering Saxifrage, with creeping stems, small, evergreen leaves, which are hairy at the margin. The flowers are bright yellow, showy, usually from one to three on short stalks, large, and well-shaped. As with a few other species, it is often sent out wrong by dealers and collectors, and I have received *S. sancta*, *S. apiculata*, and *S. luteo-purpureo*. These do not even resemble it, and are not as pretty.

A RARE SAXIFRAGE.

(*SAXIFRAGA RUDOLPHIANA*.)

A RARE Saxifrage, somewhat allied to both *S. oppositifolia* pyrenaica and *S. retusa* is *S. rudolphiana*. It is of slow growth, with trailing

should be planted in the wild garden or in grass, and the bulbs should not be allowed to get dry. The best time for planting is from July till the end of August.

Keston, Kent.

G. REUTHE.

HYACINTHUS AZUREUS OR MUSCARI AZUREUM.

THIS is one of the prettiest of the early-flowering bulbs, and one which, curiously, is not commonly seen. This is a pity, as it comes into flower when there is little else but Snowdrops and Crocuses. It should be planted in masses in the border or among the stones of the rock garden. In Scotland the beautiful Cambridge blue flowers open early in March or the end of February, though growing in the most exposed situations. It is so hardy, in fact, that it often flowers while the snow is on the ground and passes through severe frosts unscathed. About 2 inches in height, it has the appearance of a *Muscari*, with the campanulate flowers of a *Hyacinth*.

SCOTIA.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

LESSONS FROM CHRYSANTHEMUM SHOWS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—As an exhibitor of Chrysanthemums, I have been interested in the notes on this subject. When "A Reader" says the Chrysanthemum grown for large flowers only carries one bloom to a plant, one wonders where he obtained that knowledge, surely not from experience, as it is well known that almost every successful exhibitor allows each plant to carry at least three blooms. Surely "A Reader" is not under the impression that large flowers cannot be used for any other purpose than the show-boards. If he had been at the Sheffield Chrysanthemum Show last November I am confident that he would have spent more time in admiring the vase class than any class in the show, and for home decoration they can be used with equal advantage. If we grew Chrysanthemums that can be bought by the dozen in the market, would our employers admire our taste, and would they not ask if they could not have something superior to the flowers that are hawked daily in the street? It is, I think, best to grow varieties, as far as possible, that are distinct in colour from market-grown ones. I do not wish "A Reader" to think that where large blooms are grown that decorative and single sorts are discarded, for I grow almost as many of these as the others, and I find them very useful for table decoration and intermixing with large flowers.

CHAS. JENNINGS.

Aston Hall Gardens, North Ferriby, East Yorks.

NON-BURSTING CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. W. A. Watts, in his interesting notes (THE GARDEN, the 18th ult., page 160), touches on an important point when he refers to the cultural treatment having much to do with the trouble. No doubt a check when the buds are swelling will cause a contraction of the calyx, and when reaction takes place the petals will develop faster than their covering and bring about bursting. Yet I find a very strong growth is equally likely to produce the same result, but the point I would particularly refer to is that while many varieties will invariably burst the calyx of the terminal flower of the main stem, the same sorts, if stopped early, and flowered only from the side shoots, will not burst. My experience has been chiefly confined to those grown in pots. I have had most perfect flowers



THE SPRING STAR FLOWER (*TRITELEIA UNIFLORA*) ON A BORDER FACING EAST.

early flowering and beautiful forms. It is very closely related to the well-known and popular *I. persica*, even if it may not be regarded as one of its many varieties. For garden purposes, however, it is distinct enough, although it is not so pretty as the typical form which has the honour of occupying the first plate in the *Botanical Magazine*. From time to time varieties of this species have been introduced, including pale blue and purple forms. The present plant was found growing by the river Halys, in the mountainous regions of Galatia, in Northern Cappadocia, and was distributed in 1904 by Herr W. Siehe of Mersina, to whom we are indebted for many beautiful, early flowering bulbous plants. Growing at an elevation of from 3,600 feet to 4,500 feet in its native home, it should prove quite hardy in this country. It has been in flower in the alpine house at Kew for some time, and whilst it cannot be compared to the lovely *I. stenophylla*, which also comes

stems and small, hairy leaves, while the flowers are large, rosy purple, and very numerous. It is invariably the earliest of Saxifragas to flower, this taking place in January and February, even before the delightful *S. burseriana* with its snowy white flowers. Some years ago I found *S. rudolphiana* on the Alps of Tyrol and Switzerland, but it is, I believe, very local.

AN EARLY SNOWFLAKE.

(*LEUCOJUM CARPATHICUM*.)

THIS pretty Snowflake has been in flower here since the last week in January. Although when weak it differs little from the spring Snowflake *L. vernum*, when strong and well established it is quite 18 inches high, and the large, bell-shaped flowers are produced in pairs, sometimes three to a stem, and are tipped more decidedly with yellow than *L. vernum*, which is usually green; the flowers are fragrant. To grow it well it

of the variety H. J. Jones from lateral growths, while those from the main stem have split badly. At the Royal Horticultural Hall we lately had an instance. The plants of the variety Flamingo, from Mr. J. Robson, were flowering from the main stem and had burst, yet I find that plants which have been stopped and flower from the lateral shoots rarely do so. One of the first instances of this that I had was when growing the yellow variety Primrose Day. The first plant I had was stopped, and produced thirteen perfect blooms from the lateral shoots, and when submitted to the floral committee secured an award of merit by acclamation. In growing young plants on, being anxious to flower them early, they were not stopped, and as they had been vigorous every flower burst its calyx. I could

most yellow sorts. I grew Countess of Paris, but though a pretty flower, it was given up through not having sufficient petals. This is just the difficulty; when we get one that never does burst, the flowers are too thin to be of any market value. Even with the best American varieties I find that bursting occurs sometimes. At the last show of the National Chrysanthemum Society I was with a gentleman from America, who was highly amused at the paper-collar arrangements, a thing he had never seen in America.

A. HEMSLEY.

THE SPINDLE TREE.

(*EUONYMUS EUROPEUS*)

[TO THE EDITOR OF "THE GARDEN."]

SIR,—A note on the above tree recalls the fact how seldom it is used in pleasure grounds. As pointed out in the note referred to, its colour, apart from its fruit, is very fine when planted on light soil. It does best on the limestone. On the Cotswold Hills it seems quite at home, for the hedgerows are ablaze during the autumn when the fruit is ripe. I believe it does not

succeed on all soils, but where it does there is no fruit-bearing shrub so fine in effect for the margin of shrubberies. It will grow into a small tree. I found one on this estate during the autumn of 1903 from 18ft. to 20ft. in height, and loaded with bright orange scarlet fruit. This was the finest mass I ever saw. The tree was standing quite by itself, and having ample room, had formed a round-headed bush or small tree. It is easily raised from seed. There is a variety which bears much larger fruit, viz., *E. europæus latifolius*. This is a splendid tree for forming an isolated specimen in a sunny position. In the collection at Westonbirt there were some fine bushes of this very fine tree. The fruit is very much larger than that of the wild kind, and when ripe it opens, showing the seed, which is of a bright golden colour, while the outside is orange scarlet. The two colours are most effective. To those looking for ornamental fruiting trees I can recommend these two shrubs or low trees.

LILIUM ELEGANS

(THUNBERGIANUM).

(REDUCED.)

This may be planted now.

give many instances, but the above should be sufficient to prove the assertion that flowers from lateral shoots are much less liable to burst than those from the main stems. With regard to border varieties, I know that to stop the main shoot, in most instances, means to lose a season's flowering, but even with these the terminal flower may sometimes be taken off with advantage. Mr. Watts refers to yellow varieties. I have found Germania do much better when grown on a second year. For pot work only two year old plants have ever been satisfactory. And I may add that the best yellow I have known in recent years is Lady Audrey Campbell. This has a perfect calyx, good petals, deep colour, and has maintained its vigorous habit longer than

margin of some of the woods in autumn on this estate, when the season is favourable to the setting of the fruit. Of course late spring frosts will sometimes spoil the chance of a heavy crop of fruit. For some reason the crop last autumn was not so good as usual. The wood is very hard and straight, and will last a long time. No other wood makes such good stakes for garden use.

Cirencester.

A.

TREE CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It does not appear that Mr. Hemsley (see page 129 of THE GARDEN) has given the least support to his original statement that "English

raisers have certainly lost ground by discarding the fringed petalled varieties, which were the first to be grown for winter flowering, while the Americans would appear to have gained by adhering to the same type." I have already given La Belle as one of the best-known whites of years ago, and I place in company with it now the well-known Mrs. Brooks, which may be regarded as the finest type of white-flowered Tree Carnations to-day. These represent a very old type which is still grown, and a very modern type, both of English origin. Now place in the company of these two Glacier, quite a modern white-flowered American-raised variety, and we find these three so much alike in the edge of the petal, in so far as roughness or smoothness is concerned—all three being obscurely notched—that Mr. Hemsley's statement falls to the ground. As a matter of fact, the great majority of Tree Carnations of English origin are not more or less notched to-day than the old La Belle of fifty years ago. Many American sorts are just as smooth-edged as La Belle, which, as I have said, is obscurely notched, while Daybreak and America have a decidedly less rough edge than most English sorts. Had all the American-raised Tree Carnations been of one type and much serrated, the thing would be different, but as the case stands I fail to see why Mr. Hemsley has gone out of his way thus to belittle the English raiser of the past and praise the American raiser of these flowers. It is true there are many American-raised Carnations grown in this country now and have been during the past few years, and why? Simply because the Americans have seriously taken in hand the raising of Tree Carnations from seed. The flower is immensely popular there, and the climate—the winter season particularly—greatly favours the development of the blossoms. What the grower in this country should look to and consider is that type of flower like Enchantress, which, possessing petals of a nearly uniform size to the centre, opens much more readily in England in winter. America is of this type also. The more full-petalled flowers, as Mrs. Lawson, open badly in England in winter. It is the same with other flowers, Roses, for example. A thin flower, as Liberty or General Jacqueminot, is the best in winter time for the same reason. In Carnations for winter work in England, therefore, Enchantress is a capital type to work upon, while Mrs. Lawson is not. In early autumn and in April and May Mrs. Lawson does well in this country, but it is not so well suited to the sunless months of the year. On the other hand, Enchantress opens quite well, but in stronger sunlight this, like Daybreak, will, I fear, become washy and too pale to be generally useful at a second flowering.

E. H. JENKINS.

THE DROPMORE ANCHUSA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—There have been several fine forms of *Anchusa italica* in cultivation for some time, but, so far as one can judge from the illustration in THE GARDEN, none quite so good as the Dropmore one. I have known one called *Anchusa italica amena* for twenty years or more, and it had been in cultivation in Dumbartonshire for some years before that. It is much finer than the typical *A. italica*, but hardly, so far as one can judge, equal to the Dropmore form. It is not a true perennial in Scotland, except in a few favoured places, but this is, I think, largely due to its free-flowering habit, which causes it to die apparently from exhaustion.

Carsethorn, Dumfries.

S. ARNOTT.

BULLFINCH IN THE GARDEN.

[TO THE EDITOR OF "THE GARDEN."]

SIR.—I read with interest the article on this subject. They are quite a plague in this district, so much so that the County Council are recommending the abolition of the close time for this

bird. I was obliged to smile at the plea put forward that they leave the best fruit trees, and take, in preference, the buds from the commoner sorts. My experience is exactly the reverse; they stripped a Williams' Bon Chrétien tree for me, within 10 yards of my back door, in a few hours, while there were several large trees further away, and as to Red and White Currants, I am doing away with them, for I can get no crops. One large Cherry tree is quite dead, owing, in my opinion, to having the buds taken so thoroughly year after year. It is a great pity to destroy birds of such lovely plumage, but it is the only way to keep any fruit. I have shot seven this season, and they are now getting a bit shy, but the mischief is done.

Lydney.

F. W. HARRIS.

THE FLOWER GARDEN.

BULBS FOR PRESENT PLANTING.

BULBOUS PLANTS help a great deal towards beautifying the garden, and none can afford to dispense with them. Some of the principal families are very extensive—like the Lily—and embrace a wide range of form and colour. By judicious planting a most interesting and beautiful display can be maintained for the greater part of the summer. The spring display of bulbous flowers naturally depends on autumn-planted bulbs, which require to have time for root action before the winter commences. Among those that require to be planted in autumn may be mentioned Snowdrops, Crocuses, Glory of the Snow, and Scillas, which flower in February and March, with Tulips, Hyacinths, and Daffodils following close after. On the other hand, there are many bulbs not hardy enough to stand out during the winter, and which have to be planted in spring, also others which, although quite hardy, may be planted as late as the month of March with a certainty of giving satisfactory results. Among the many things that may be planted now is the African Lily (*Agapanthus umbellatus*), a handsome plant for growing in tubs, vases, or pots for the decoration of verandahs or terrace walks. This is also very effective when planted near the edges of ponds or streams, and in the warmer parts of the country may be left out during the winter with a good covering of litter. The Peruvian Lilies (*Alstroemeria*) may still be planted on a warm border in well-drained sandy soil, although the sooner they are in the better it will be, as they have already commenced to grow. When well established they produce an abundance of showy attractive flowers, which last well when cut. Three of the most effective and hardy are *A. aurantiaca*, *A. chilensis*, and *A. lutea*.

ANEMONE.—The Windflower family contains many beautiful flowering plants of an endless variety of colour most valuable for planting in beds or in masses in the border. A succession may be obtained by planting at intervals from October to March; and the later batches should now be planted. Good, richly-manured soil is necessary for their successful culture, and plenty of moisture when growing. The double Poppy Anemones (*A. coronaria*) have large, semi-double flowers of many colours, and if planted in March will flower in June. The St. Brigid Anemones are a lovely strain, with

large, semi-double flowers of brilliant colour and graceful habit. *A. fulgens* (the scarlet Windflower) and its handsome variety from Greece may still be planted, but a more sheltered and partly shaded place should be chosen for this later batch.

GLADIOLUS.—The members of this genus rank amongst the most handsome of late summer and autumn flowers, and should be represented in every garden. The time of planting varies according to the season and locality, but may commence at the end of March and continue to the end of May. They love a deep rich soil and a sunny situation, the bulbs being planted about 4 inches deep and surrounded by sand. Groups are very effective in the border or planted between low shrubs associated with Lilies, Kniphofias, and similar plants. There are several distinct races contained in this genus, comprising an endless range of colour, among which may be mentioned *G. gandavensis*, with flowers varying from white to scarlet and crimson in large bold spikes. The Butterfly Gladioli form a lovely strain, with flowers of brilliant shades, and handsomely blotched with contrasting colours. They are hardy and vigorous, coming in between the early and late flowering Gladioli. Other strains with beautiful flowers are *G. nanceianus*, *G. Childsii*, and *G. brechleyensis*, the large-flowered vermilion-scarlet Gladioli, which bloom just before the *gandavensis* varieties.

LILIUM.—This genus contains enough variety of form and colour to make a complete garden, for by a judicious selection a succession of bloom may be obtained from May to October. Many require planting in the autumn, but a good number may be planted now. It is essential to have a cool rooting medium with perfect drainage, and partial shade from the hot sun. These conditions may be obtained by planting between Rhododendrons and other low-growing shrubs. Among those which may be planted now are *L. auratum* and its varieties, *L. Brownii*, *L. chalcidonicum*, *L. croceum*, *L. elegans* and varieties, and the beautiful forms of *L. speciosum*, which flower in the late summer and autumn. Other decorative summer-flowering bulbous plants which may be planted now are *Galtonia candicans*, a handsome plant with pure white bell-shaped

flowers on tall stems; *Montbretia crocosmæflora*, with elegant branched spikes of brilliant red and golden flowers of various shades; and the gorgeous flowered Peacock Tiger Iris (*Tigridia Pavonia*) from Mexico. Of the last named there are several varieties, with beautiful flowers ranging in colour from white to scarlet. A sunny position is essential in well-drained soil, when they will make an effective display in July, August, and September.

W. IRVING.

PROPAGATING EARLY-FLOWERING CHRYSANTHEMUMS.

In many gardens the propagation of the early-flowering Chrysanthemums has been proceeding apace for some time past. There is very little to gain by this early propagation, as the resulting plants cannot be planted outdoors until the first or second week in May at the earliest, and in the meantime the plants are occupying valuable space in cold frames or pit frames that might with advantage be used for other more tender plants. The early-flowering Chrysanthemums never seem to do better than when they are propagated in February and March, and during the latter month cuttings are produced in abundance on the old stools. This later insertion of the cuttings answers admirably, the rooting process being rapid, and under ordinary treatment the young plants make quick progress; so much so that by the third week in May—an ideal time for the planting—they have made sturdy and bushy little specimens that grow away at once.

Early-flowering Chrysanthemums must not be coddled or checked. Old stools that were lifted in the early days of the new year, and those taken up from the border quite recently and placed in a little warmth, are bristling with growths of recent development, and these of a kind that, when detached, root readily enough. The cuttings should be inserted in shallow boxes or in a cutting-bed made up on the side benches of any glass structure available. Loam and leaf-mould in equal parts, both passed through a sieve with a half-inch mesh, and the free addition of coarse silver sand, will make a suitable compost for propagating purposes. The heap must be well mixed before it is used. Water in the



AGAPANTHUS UMBELLATUS AS A TUB PLANT. (See "Bulbs for Present Planting")

cuttings by the aid of a fine-rosed can, and maintain a temperature in the glass structure of from 45° to 50°. If the cuttings flag this should give little or no concern, as under ordinary circumstances, when the temperature is maintained at the figures named, rooting process should take place within two or three weeks. We do not place the cuttings in a propagating frame, as the close conditions prevailing there invariably causes many of them to damp off. A cutting-bed made up along the front or back edge of the side benches enables one to raise a large batch of plants in a little while and with comparative ease. As soon as rooted the young plants are transferred to frames outdoors and gradually inured to harder conditions, until in the end the frame-lights may be entirely removed and the stock rendered fit for planting outdoors in May. Plant out 6 inches apart when transferring the rooted cuttings to the frames. D. B. CRANE.

TROPICAL FRUIT.

THE GUAVA.

THOUGH the Guava as a fruit is unknown in the English market, in a preserved form, either in syrup or as a kind of jam, the Guava enters into general trade. The tree (*Psidium Guava*) is an evergreen from 15 feet to 20 feet high, originally a native of tropical America, but in consequence of the value of the fruits it has long been introduced into India, where it is not only widely cultivated, but occurs also in some parts in a semi-wild state. Two distinct varieties are known, one with a Pear-shaped fruit, and described under the Linnean name *pyriferum*, and the other Apple-shaped, called *pomiferum*. The latter is usually pink inside, and the former white, but these colours are not constant. The better cultivated trees produce excellent fruit, with a thin bright yellow rind filled with a pulpy, yellowish, cream-like or red flesh, which has a pleasant sub-acid flavour. The fruit is universally eaten by all classes. The natives mostly eat it in its ripe raw state, Europeans eat it both raw and cooked, or made into jelly, or, as it is generally called, Guava Cheese. The Guava belongs to the very large order *Myrtaceæ*, and is allied to the Pimento or Allspice Clove and many other valuable commercial plants. JOHN R. JACKSON.

Claremont, Lympstone.



THE GUAVA (*PSIDIUM GUAVA*): A TROPICAL FRUIT WHICH IS MOST SUCCESSFULLY GROWN IN SOME ENGLISH GARDENS.

(Shown at the Royal Horticultural Society's exhibition last Thursday.)

ROUND ABOUT A GARDEN.

MISCHIEVOUS BIRDS.

FROM information received—as the police say—since I last wrote, I fear that there is no doubt whatever about the exceedingly mischievous conduct of the bullfinch in a fruit garden. At the same time, no evidence has come to hand on the point whether it may not be possible to protect our fruit buds by making fences of plants whose buds the bullfinch prefers to those of our fruit trees. Bullfinches, again, are amazingly fond of hempseed, and has any fruit-grower, in a district infested by

bullfinches, tried the experiment of putting out hempseed for them? This would need to be protected from the sparrows, of course, by a fence of black cotton; but, after hearing the lamentable tales which fruit growers tell of the devastation wrought by bullfinches, one cannot help thinking that the experiment would be worth trying. Hempseed is cheap, and it is only during one-third of the year that the buds need protection. At any rate, people who are not exactly "fruit growers," but who like to have a good supply of fruit from their gardens, and who like, at the same

themselves upon the performance. The wonder is that there is not such a market for live bullfinches as should make the shooting of them seem not only unnecessary but wasteful. The bird is very easily trapped and makes an ideal cage bird. It is a nice, comfortable, gentlemanly bird, and its song, though sweet and pleasing, is never exasperatingly loud or shrill, nor so frequently repeated as to be wearisome. In addition, the bullfinch has its rare capacity for learning to pipe tunes. It will nest freely in confinement, too; and if the old birds are freely permitted to come and go when the young are hatched, they are said to rear them successfully, although they cannot do this in close confinement, being unable apparently to obtain the proper milk-food for the newly-hatched young from their cage diet.

A QUESTION OF SUPPLY AND DEMAND.

In London, if you wish to buy a bullfinch, you will have to pay from 2s. 6d. to 5s., according to locality; and it really seems as though the machinery of supply and demand must be out of joint, when a gardener in Devonshire will kill and throw away several scores of birds which might be sold for several shillings apiece in London. Many people have a strong and natural objection to the caging of wild birds, but when, as in the case of the bullfinch, which makes one of the best of cage birds, it is a question of killing or catching, even humanitarian sentiment might be in favour of the latter. Indeed, if the matter were properly taken up a special trade in cheap bullfinches might be established, which would not only make it worth the gardener's while to trap the birds instead of killing them, but would also leave a margin of profit on the transaction. There would be human satisfaction, too, in keeping a pair of caged bullfinches when one knew this to be the alternative of their destruction.

MULTIPLYING BIRDS.

The general question of birds in gardens is full of difficulties, which will become more serious year by year as the birds multiply, in consequence of the humane attitude which the public has definitely adopted towards them. The mischief which the sparrow does is always exasperating in spring; but the greenfinch, who deliberately tears off the blooms from Primroses which grow in shady shrubberies, as the sparrow does from those that grow in the open, might be just as bad if he were equally numerous. The hawfinch, who was an extremely rare bird thirty years ago, has become too familiar in many places

THE BULLFINCH AS CAGE BIRD.

Unless some such device is found to be effective, there seems to be no escape from the conclusion that the fewer bullfinches we have in the country the better, and that people who kill seventy or eighty bullfinches in a winter, as some gardeners do in the south-west, are justified in congratulating



A NEW ORCHID (ODONTOGLOSSUM LAWRENCEANUM).

(Given an award of merit by the Royal Horticultural Society on the 14th ult.)

as the arch destroyer of green Peas. Cross-bills, still regarded in most parts of the country as interesting rarities, are shot at sight in others on account of their absurdly-wasteful trick of destroying Apples in order to get at the pips.

EVEN THE TITS MAKE TROUBLE.

There are black marks even in the records of the most useful birds; and, when these multiply, the mischief which they do seems to increase by leaps and bounds out of all proportion to the mere growth of their numbers. In every corner of the country now you hear that the rook, the "farmer's friend," has fallen into evil ways since he began to multiply; and even the tits, whose general utility in a garden is undeniable, are anathematised by fruit growers on account of their habit of spoiling quantities of fruit by pecking a hole in each near the stalk. For this damage the often-recommended device of putting pans of water near the trees, with the idea that it is thirst only which impels them to attack fruit, seems no preventive; and the only effective stratagem seems to be to enclose each fruit in a bag, or to protect it with a disc of paper round the stalk. But when one considers the average price which a grower obtains for his fruit, one realises how heavily handicapped he would be if he had to adopt either of these devices against the tits.

DEGREES OF GUILT.

The wholesale damage done by starlings in Cherry orchards, and the ravages of many kinds of birds among the bush fruit and Strawberries, are well known to everybody; but only observant gardeners are able to distinguish between the degrees of mischief properly attributable to the different kinds. When, for instance, you find that, as is often the case, boys are encouraged to destroy the nests of blackbirds and thrushes indiscriminately in order to protect the fruit you

have proof of ignorance. The blackbird is, undoubtedly, more mischievous than useful in a garden during the summer, from the fruit grower's proper point of view; but the reverse is the case with the thrush. It is only in drought, when snails are hard to find, that the thrush will raid the fruit; but, when fruit is ripening, the black-

bird will always leave the work of hunting for slugs and worms in order to feast upon it. Year in, year out, the more thrushes you can have in a fruit or vegetable garden the better.
E. K. R.

NEW AND RARE PLANTS.

ADONIS AMURENSIS FL.-PL.

FOR the rockery Adonis amurensis is a beautiful spring-flowering plant, and the illustration shows a handsome double form of this good early plant. The yellow blossoms are very pretty, and are rendered doubly attractive by a centre of deep pea-green. It is a valuable plant for the rockery or border. It was exhibited by Messrs. Cutbush and Son, Highgate, at a meeting of the Royal Horticultural Society on the 14th ult., and then received an award of merit from the floral committee.

ODONTOGLOSSUM LAWRENCEANUM.

M. VUYLSTEKE, Loochristi, Ghent, has from time to time exhibited some very beautiful Odontoglossums in this country, and on the 14th ult., in the Horticultural Hall, he showed the flowers we illustrate. O. lawrenceanum is a handsome hybrid, the result of a cross between O. triumphans and O. crispoharryanum. The sepals and petals have a ground colour of rich yellow, but this is visible only at the ends and in streaks between heavy blotches of chocolate-red. The lip is white at the base and lilac-purple above. An award of merit was given to it by the Orchid committee.



THE NEW DOUBLE-FLOWERED ADONIS AMURENSIS.

(Given an award of merit by the Royal Horticultural Society on the 14th ult.)

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

MAKING CUTTINGS.—When it was necessary to produce thousands of Verbenas and other soft-wooded plants, single joints, and even half joints, of free rooting things would make cuttings that would soon grow into plants in a brisk hot-bed or propagating case. The knife must be very keen, as bruised tissues will damp and decay. Cuttings of healthy shoots of pretty well any soft-wooded plants will root well now. Cut the base of the cutting close under a joint or node. The sap is arrested there in its downward course, and deposits granular matter.

Value of Foliage to Cuttings.—The bottom pair of leaves must be removed, but the more leaves left on the cuttings, if they can be kept from wilting, the sooner the roots will form. This shows the value of surrounding the cuttings with a close, moist atmosphere, and explains the reason why the gardener strikes his cuttings in a close frame, especially such things as are unable to bear the sunshine. Some plants, such as Geraniums, do not require a confined atmosphere, and Cactus cuttings will begin to form roots if laid on a shelf.

Evergreen Trees and Shrubs.—When struck from cuttings the early autumn is the best time to take them, and the cuttings should, if convenient, be taken off with what is termed a heel of old wood, and need not be more than 5 inches or 6 inches long, and should be taken from erect branches near the top of the shrubs or trees. The cutting bed should be formed of sandy loam and leaf-mould, with a layer of sand on the top, and made firm. The bed must be either covered with hand-lights, or be made in a frame.

Cuttings of Roots.—Quite a number of plants may be propagated from root cuttings. The thongs or roots trimmed off Seakale, crowns which are taken off for forcing, are always used by gardeners to raise stock for the next season. They are cut into 4-inch lengths, and laid thick end upwards in damp sand or soil, and during winter new crowns are formed. Other plants which may be propagated from cuttings of roots include Bouvardias and Japanese Anemones. These may be cut up small and sown like seeds, and covered lightly with sandy soil.

The Right Treatment of Seedlings.—At this season thousands of plants for the flower beds and borders are raised from seed, for the most part sown in shallow boxes. Their ultimate success depends upon the treatment given in youth. As soon as seedlings are large enough to handle, if they have been raised in heat, harden them by giving more air, and when strengthened a little prick off in other boxes from 1 inch to rather more from each other. The soil should be reasonably firm. Keep close for a few days till the roots get to work, and then give free ventilation and expose to full light. Harden off later and plant out in May.

Pruning Climbing Roses after Planting.—When one gets a good, strong climbing Rose from the nursery, with shoots some 4 feet or 5 feet long, one is tempted to leave them their full length in the hope of getting some flowers the first year. This object would probably be attained, but even then the flowers would not be worth very much, and it would be a great mistake so far as the future welfare of the plant was concerned. Even the strong shoots should be

cut back to within, say, 6 inches or so of the base, and the result will be that strong healthy shoots will spring up from near the ground and reach the top of a 6-foot high pole, or higher, by the end of the summer. Thus a good foundation will have been laid. The next year the best of these shoots may be left to flower. It is always advisable, however, to cut down one shoot, so as to ensure strong growth from the base. If this is not done the bottom of the tree will probably become bare and unsightly.

Planting Lilies.—As a rule Lilies (Liliums) like a moist soil and partially shaded position. Care should be taken to ascertain whether the sorts to be planted root from the base of the bulb or from the bulb and stem also. The latter sorts must, of course, be planted more deeply than the former, for if they are planted too near the surface their stem roots will not develop properly. This being the case the growths will be poor and flowers absent or unsatisfactory. Amateurs with small gardens will find Lilium croceum (the Orange Lily) one of the best. L. umbellatum, L. Hansonii, L. tigrinum, and L. speciosum melpomene are also easily grown.

Sweet Peas in Tubs.—It is an excellent plan to grow Sweet Peas in tubs, for they do remarkably well, and thoroughly repay the trouble. Give them plenty of manure in the soil, for Sweet Peas like a rich soil, and see that there are holes in the tub bottoms, and that the drainage is good. Sow the seeds about 1 inch deep and 3 inches apart; this will be quite close enough. Protect from birds with wire netting when they begin to grow. Sow one variety only in each tub; it is much more effective to keep the colours apart than to mix them in the same tub. Good sorts are King Edward, Dorothy Eckford, Captain of the Blues, Miss Willmott, Lady Grisel Hamilton, Othello, and coccinea.

Effect of Draught on Plants.—Very little is heard of the disastrous effect of draught on plants, yet this may explain the sometimes apparently mysterious collapse of plants, especially in small gardens. It is at this time of year particularly that its ill-effects are apparent. As a case in point I may mention that in a small garden known to me numerous Wallflowers were planted in a border immediately beyond the side entrance to the garden, and in the same line with it. This entrance was barred only by a wire gate, through which the cold winds of early spring rush with considerable force, and it is, undoubtedly, due to this cause that the Wallflowers have collapsed. For some time it was difficult to find the reason of their failing; wireworms were suspected, for the leaves drooped and the plants completely collapsed, as though the bottom of the stem were injured. It was noticed, however, that the plants on the other side of the garden were in quite good health, and it was this that helped to elucidate the mystery. Those whose gardens are similarly handicapped should provide some protection, as, for instance, covering the gate with canvas or wood so as to prevent the draught.

Dealing with Weeds.—If a gardener is to do his work with satisfaction to himself he must always be up to time. If the work gets into arrears, especially in dealing with our two greatest troubles—weeds and insects—there will be no peace during the summer. Weeds left too long form seeds, which soon scatter and grow, and the work then is endless. Kill the weeds on a bright sunny day, when young, with the hoe, and

the work is a pleasure. The same principle holds good with insects. Attack them when they are few or keep in front of them, and the work is light and satisfaction great.

Ferns in Baskets.—Home-made wire baskets are better for Ferns than the shop articles, as they are more easily covered with creeping growth. Some Ferns require no help in this way, the most suitable being Nephrolepis exaltata, N. tuberosa, Polypodium aureum, Pteris scaberula, the Elk's-horn (Platynerium alaicorne), and several Davallias or Hare's-foot. For covering the base and sides of baskets Cissus discolor and the pretty Indian Grass (Panicum variegatum) are very suitable.

Planting Marrow Peas.—Draw drills 4 inches deep and from 5 inches to 6 inches wide when the surface is dry. Isolate the rows, if possible, and let them run north and south. Early Potatoes, Spinach, or dwarf French Beans may be filled in between. Plant the Peas 3 inches apart in the drills, cover with the hoe from each side, tread to make the soil firm, and rake smooth. If the sparrows attack the Peas when through the ground, dust with soot early in the morning when the dew is on them.

Onions as an Allotment Crop.—It is possible to make a living by growing Onions if the land is good and clean; if weedy, grow Potatoes or some other crop which can be easily cleaned. In my experience the heaviest crops have been obtained by sowing under glass early in February in boxes where there is a little warmth, so as to have the plants ready to set out early in April, having been first hardened off in a cold frame. Plant in rows from 10 inches to 12 inches apart, and 6 inches apart in the rows.

The Duke Cherries on the Mahaleb Stock.—I never could do much with the Bigarreau on the Mahaleb stock as bushes. In spite of root lifting they still bore no fruit. They want room to strike out, but the early and late Dukes were splendid, made short-jointed wood which ripened up well, and the trees in spring were white with blossoms, which set well, and the trees, being of compact growth and moderate in size, were easily netted up from the birds when the fruit began to ripen.

Apples which Fail on the Paradise Stock.—Lord Suffield soon wears itself out on the Paradise stock. Worcester Pearmain is also short-lived on the same stock. The stock is not sufficiently vigorous for these free-bearing Apples, even when fairly well nourished with rich top-dressing. Without these aids to success the failure is more complete, but many amateurs who plant trees on dwarfing stocks do not seem to realise how necessary it is to banish the spade from their roots, and not to plant anything within 3 feet of the stems.

Good Late Apples.—The good qualities of the Sussex Apple Alfriston are pretty well known, but I do not think its good flavour at this late season has been recognised. There are several in the list of cooking Apples which are very good for eating raw in the spring. Alfriston is one of these, and Annie Elizabeth is another. I am surprised, when so much is being written about American Apples, that so little notice has been taken of that excellent late dessert Apple, Lord Burghley. It was sent out by a Peterborough man, I believe, and introduced in a lukewarm manner.

GARDENING OF THE WEEK.

FLOWER GARDEN.

RHODODENDRONS, Kalmias, Andromedas, and other American plants should be planted forthwith. It is not essential they should be planted in peat, for they will thrive equally as well in good loam—free from lime—with a good admixture of well-decayed leaves. Unfortunately, this class of plants will not succeed satisfactorily on the limestone. If not already done, add Rhododendron Pink Pearl to the collection, and plant in a partly shaded position for the benefit of the expanding blooms, for bright sun tends to take out the delicate colour quickly. Apart from these so-called American plants there are many dwarf evergreen shrubs which should not be overlooked, for they are most interesting, deserving of special treatment—selecting sunny, sheltered positions, as some are comparatively tender, making up beds of good friable soil, and planting, or transplanting, without delay. All are splendid for beds and grouping, and many are fine as single specimens as well as wall plants. I name a few—a dozen: Osmanthus in variety, Olearia Haastii, Diplopappus chrysophyllus (syn. Cassinia fulvida), Choisya ternata, Gum Cistus, Escallonia in variety, Berberis in variety, Elaeagnus in variety (the golden variety being the brightest shrub I know; even the best golden Hollies pale in association with it), Griselinia littoralis, Azara microphylla, Desfontainia spinosa, and Garrya elliptica.

SHRUBBY VERONICAS.—Another valuable and useful class, much neglected. I fear many are deterred from planting these from a notion that they are too tender and unreliable for the embellishment of the flower garden; but there are many among the species which stand the rigours of the ordinary winter, even inland where frosts are severe, provided care is taken at the outset in choosing for them warm spots sheltered from keen easterly blasts, and there are nooks of this kind in many places, and unfortunately occupied by much commoner stuff. They are not fastidious as regards soil, providing it is not too heavy and sodden. There are not many dwarf evergreen shrubs that yield such a return for the little trouble and care bestowed, in the way of variety, ample and beautiful foliage, and a long season of plentiful bloom. I suppose *V. Traversii* is really the hardiest of the group, and is very neat and prim in habit (too much so in some positions and associations) and very pretty while in bloom, but its season is short. Perhaps a shade less hardy are *V. salicifolia*, *V. vernicosa*, and *V. elliptica*, but which, for a freer and more graceful habit of growth and more continuous blooming, leave *V. Traversii* far behind. (Personally, I cannot write definitely of the relative hardness of the above, as none are injured here.) Following these come the hybrids, *V. Andersoni* and its variegated form, *Simon Delaux*, *Epi Blanc*, *Purple Queen*, and *Blue Gem*—to name but a few of many good sorts—to carry on the display (a glorious one too) until the advent of frost. Should these have to be lifted and potted up annually under unfavourable climatic conditions, the return is fairly good, even if for only a season, and they are so easily and quickly propagated from cuttings that they may be grown and flowered as annuals if autumn-struck. For the rock garden there are many gems included in the species, such as *V. buxifolia*, *V. cupressoides*, *V. diosmifolia*, *V. carnosula*, *V. glauco-cærulea*, *V. formosa*, and others, hardy, distinct, and interesting.

BEGONIA TUBERS. Having started into growth, must be cleared from the stages and boxed in light, leafy soil, kept moderately cool and in full light. If space indoors is limited they may be boxed rather thickly, and when fairly rooted and the weather favourable they can be transferred into cold pits, turned out of their boxes, and planted in rough leafy material. This will stick to the roots when lifting for beds and borders, and be of advantage for a fresh start. J. ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

GENERAL REMARKS.—Many plants require potting now. Caladiums may be potted on singly, or several in a pan if large specimens are grown. It is much better to wait till the plants are growing vigorously before putting them together. *Clerodendron fallax* should be given plenty of root room till the final shift is reached. Seedlings and old plants cut back are, or soon will be, ready for potting. Pot up batches of *Cannas* for succession. Pot on or pinch some of the show and Regal *Pelargoniums* to lengthen the season of flowering. Give plenty of air on all favourable occasions, keeping the plants cool and near the glass. If not already done, pot or top-dress *Francoa ramosa*. Another species not so frequently met with is *F. sonchifolia*. It has pinkish flowers, is quite as free as *F. ramosa*, and requires similar treatment.

WINTER-FLOWERING CARNATIONS rooted last autumn will be ready for potting on. Remove the tips of the shoots two or three times to induce bushy growth. The points of the spring-struck plants should also be taken out when 3 inches or 4 inches in height. Support the flowering shoots of *Malmaisons*. Give cool treatment, avoiding draughts. Fumigate if there is any sign of green fly. The two latter remarks also apply to *Cinerarias* and *Calceolarias*. Stand on a cool ash bottom for preference. Give weak manure-water occasionally. *Clivias* flower much better if pot-bound, and unless more stock is required seldom require potting. Plenty of water is necessary during summer. Frequent doses of liquid

manure are beneficial when they are growing freely. Place old plants of *Euphorbia fulgens* (jacquiniiflora) in a temperature of 60° to 65° to produce cuttings. These can be inserted with a heel of old wood when 3 inches in length, in a close propagating frame with bottom heat. Cuttings of *Begonia Gloire de Lorraine* and its varieties should be inserted as they attain sufficient length. Annuals such as *Collinsias*, *Clarkias*, and *Godetias* require a few stakes for support. The twigs from half-worn-out brooms will be found excellent for this work.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

POT VINES.—The Vines which were started in November will now be colouring their fruit. They need less atmospheric moisture, but there must still be no stint of water at the roots, although stimulants must be gradually withheld as the berries approach ripeness. Admit plenty of air, both top and bottom, on favourable occasions, and never quite close the top ventilators. The laterals may now be allowed to grow at will.

EARLY PERMANENT VINES.—Assuming the borders are in a healthy condition and the Vines are carrying a full crop of fruit, they should receive a good mulching of rich farmyard manure as soon as the berries are stored. This should be thoroughly washed in with tepid water on a fine bright morning when a little air can be admitted at the top of the house. The trellis is now properly furnished with foliage, and all growth must be kept pinched. In the case of old Vines, where a little growth is wanted to encourage root action, a leading shoot may be allowed to extend down the back wall of the house. The bunches should be again looked over and small, seedless berries carefully removed. If mildew appears a little sulphur dusted on the affected parts will check it. A little should be also placed on the hot-water pipes.

FIGS.—The fruits on the earliest pot trees which were started at the end of the year are ripening. Give them every encouragement to assist development by feeding with liquid manure and *Le Fruitier*. The night temperature may now be safely raised to 65°. Keep always a moist atmosphere. Give the trees a thorough syringing morning and afternoon. Damp the floors in the evening with liquid manure. Admit air when the temperature rises above 70°, and increase it as the sun gains in power. Close the house early in the afternoon after syringing. Attend to stopping and regulating the shoots, so that the fruits receive full benefit of sun and air, without which the flavour will be inferior. When the fruits are ripening feeding must be discontinued and the atmosphere kept in a cooler and dryer condition, but the roots must receive abundance of clear water or the later fruits will drop. The borders of old-established trees will be greatly benefited by a good mulching of horse manure which has well fermented. This not only acts as a good fertiliser, but the ammonia given off will help to keep down red spider. Watering the borders must be regularly attended to, and if roots are plentiful stimulants may be given at every alternate watering. Stop the shoots at the fifth or sixth leaf, except where extension is desired. Remove any weakly spray, and avoid overcrowding. Examine the borders of trees growing outdoors, and give water if necessary. A temporary covering should be at hand in case of sharp frosts. The trees are more susceptible to injury by frost now than when in a dormant state.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

ORCHIDS.

DENDROBIUMS.—Where a fairly representative collection of *Dendrobium* species and hybrids is cultivated some of them will be in flower nearly the whole year round, but by far the greater number of them have been in bloom during the past two or three months. So numerous are the different varieties that have recently passed their flowering stage that it would not be possible to enumerate them all here, but a few of the principal species may be mentioned—*D. wardianum*, *D. crassinode*, *D. primulinum*, *D. andleyanum*, *D. lituliflorum*, *D. signatum*, *D. Pierardii*, and the numerous forms of *D. nobile*, also the following hybrids: *D. burfordiense*, *D. Melpomene*, *D. Wigane*, *D. Juno*, *D. Clio*, *D. dominianum*, *D. micans*, the *melanodiscus* and *chrysodiscus* hybrids, *D. Ainsworthii* and its crosses, including *D. splendidissimum grandiflorum*, &c. The majority of these plants are now developing new growths freely, and as the plants quickly send out new roots when the growths are only a few inches high, they should be supplied with fresh compost at once, because, if these tender roots are allowed to become far advanced before repotting takes place, they are apt to get damaged, and the season's growth may be seriously affected. Plants that are healthy and have sufficient room for further development need only to be resurfaced with fresh compost. Pick out as much of the old material as possible, even to the drainage, and if the plants are not thoroughly well rooted it is advisable to add extra drainage, so as to lessen the amount of compost. When repotting strong, well-rooted plants, root disturbance should be avoided as much as possible. This may be done by carefully breaking the old pot, taking it away piece by piece, and removing the old soil where there are no roots. Then place the plant in a pot of convenient size, and afford plenty of drainage. For this I use the Fern rhizomes which are taken from the peat. Previous to use they should be well dried to destroy all fungoid growth. Overpotting should be studiously avoided, as it is likely to be, sooner or later, detrimental to healthy growth.

THE BEST COMPOST.—For small-growing varieties and young seedlings chopped sphagnum moss, well mixed with small crocks and sand, forms a suitable compost, but

for the larger specimens and strong-growing varieties a small quantity of peat may be added with advantage. For the next few weeks after repotting keep the plants rather on the dry side, but as soon as the young breaks send forth roots moisture both at the root and in the atmosphere may be gradually afforded, and as the roots obtain a firm hold of the soil it may be considerably increased. When the plants are making satisfactory progress it is good practice to syringe well the under sides of the foliage with tepid rain water every morning when the temperature has risen to its proper standard—70° to 75°—if the day promises to be fine, and again at closing time on all warm, sunny afternoons. *Dendrobiums* with but few exceptions require a hot, moist temperature such as is generally maintained in the East Indian house or the ordinary plant stove. At the beginning of the growing season it is not advisable to subject the young, tender growths to strong direct sunlight, but towards the end of August they may gradually be inured to full sunshine. All newly-imported *Dendrobiums* should at first be placed in crocks only and kept in an intermediate temperature until growth commences, when the plants should be potted and placed in the warmer house with the older and established plants. For the first season imported plants should be placed in as small pots as possible, because if the new roots get into a mass of sodden compost they speedily decay and the young growths make no satisfactory progress.

Burford Gardens, Dorking.

W. H. WHITE.

KITCHEN GARDEN.

POTATOES.—The importance of securing a good crop of Potatoes is a fact well known to both professional and amateur gardeners, and consequently there is great necessity for careful consideration as to what kind of seed will be likely to succeed best in different localities, and under what conditions of cultivation certain kinds will be most likely to result in a supply of flowery and wholesome tubers. Of the numerous varieties in the market it is a difficult matter for anyone to say which are the best kinds of seed Potatoes. Experience has taught me that those which succeed splendidly in some places will completely fail in others. As, for instance, in a garden near Reading I found *Magnum Bonum* *par excellence*, and again when I tried it in Wharfedale the result was disastrous. In the first mentioned garden the soil was deep and heavy, while in the other it was of a light porous nature. It is therefore evident that cultivators would do well to depend a good deal on their own judgment in the selection of seed Potatoes. Taking into consideration quality of soil, &c., two varieties which I have never known to fail under any conditions are *Ashleaf Kidney* and *Maincrop*. Neither are heavy croppers, but both are of excellent flavour, and this I consider of first importance. For the main crop of Potatoes I prefer a plot of ground that was well manured for a last year's crop, but where no manure was given during last autumn's digging. I find a dressing of leaf-soil most beneficial applied either in autumn or at planting time. It is also my plan to dress the Potato plot immediately after planting with lime in the shell, allowing about a barrow-load to 9 square yards or 12 square yards. The sets are planted on the flat in drills 3 inches or 4 inches deep. For small growers leave 18 inches between the rows, and 12 inches from set to set. The distance for larger growing kinds can be judged accordingly.

FRENCH BEANS.—The time has arrived when this ever-welcome vegetable can be grown in a cold frame, to succeed those grown in heat, and precede those to be grown on an open border. Drain as many 3½-inch pots as may be required, and fill to within three-quarters of an inch from the top with equal parts of leaf-soil and light loam. Plant a seed in the centre of each pot, afterwards thoroughly moisten the soil with tepid water. Stand the pots in a temperature of about 70°. A week or so before the plants are ready to be transferred to their permanent quarters have the soil stirred up with a digging fork on the border chosen, and the frame placed in readiness to receive the young plants. By this arrangement considerable warmth is secured, and little or no check sustained in moving from the forcing house. Allow the young plants to stand in the frame for a couple of days in their pots, then plant carefully. Keep rather close in the daytime, cover with mats at night. Sutton's Forcing will be found an excellent variety for this purpose. J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

STOVE & GREENHOUSE.

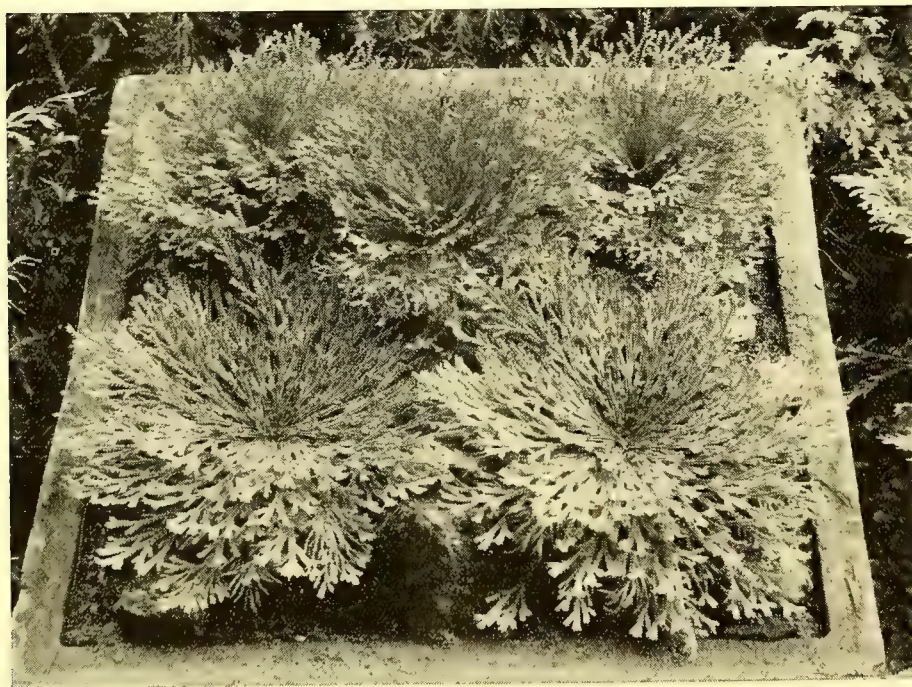
GREENHOUSE SELAGINELLAS.

VERY attractive when well grown are the many beautiful species of *Selaginella*. They may be grown in pots, pans, or baskets, creeping among rocks or stones, suspended in baskets, or rambling under the stage. There is plenty of variation in colour, e.g., different shades of green, metallic blue, and several variegated forms. For mixing with flowering plants they are very useful. Quite a number may be successfully cultivated in a cool greenhouse or in a dwelling-house. With a little trouble good plants can be had all the year round. They require somewhat similar treatment to Ferns.

Propagation.—This is usually effected by cuttings, except with one or two, which are better if increased by division. A close propagating frame or bell-glass should be used. Spring is the most suitable season, although given suitable conditions they will root at almost any time. Cuttings may be placed in the pots or pans in which they are to remain, or inserted thickly in pans and transferred to their permanent quarters when rooted. They thrive in any light soil. The better the soil the better will the *Selaginellas* grow. A suitable compost consists of equal parts peat, loam, and leaf-soil, with plenty of mortar rubble, sandstone, or charcoal intermixed.

Those species which produce rhizomes, or, in other words, underground elongated stolons, may be cut down, top-dressed, and grown on again. Great care must be taken to give good drainage, as copious supplies of water are required at the roots when growth is luxuriant. How many of the bare and unsightly corners of greenhouses where flowering and many foliage plants will not grow might be beautified by the use of a few *Selaginellas*! A charming effect is produced by fixing wire netting, cork, or other material a

mass; *S. bakeriana*, of a brownish green colour, trailing growths 6 inches to 9 inches in length, copiously coned; *S. Braunii*, a Chinese species, has woody stems 1 foot to 2 feet in length; *S. Douglasii*, a trailing species, growing 3 inches to 6 inches long; *S. emiliana*, a variety of *S. cuspidata*, especially useful for small pots, bushy habit, 6 inches to 9 inches high, light green when young, becoming darker with age; *S. Galeottii*, a long-fronded, graceful Mexican species, this plant is excellent for baskets; *S. helvetica*, a dense-growing species, quite hardy; found in Switzerland, through Siberia to China and Japan; *S. kraussiana* is a well-known trailer, often, but erroneously, met with in gardens under the name of *S. denticulata*, from which it is quite distinct. It is sometimes used as a carpet for summer bedding in favourable positions. There are several pretty varieties: *aurea*, of a distinct golden colour; *variegata*, a white-tipped form; and two much-crested forms, *Brownii* and *Standfieldii*; *S. lepidophylla* is commonly known as the Resurrection Club Moss. It has the property of rolling up when dry and unrolling when wet. This is probably due to the wet and dry seasons experienced in its native habitat as



SELAGINELLA PILIFERA (A BEAUTIFUL GREENHOUSE PLANT).

few inches from the back wall of a greenhouse, filling with a loose compost, and planting with *Selaginellas*.

Baskets.—Some are suitable for growing in baskets, notably *Galeottii*, *uncinata*, *plumosa*, and *Mettenii*. These should be rooted from cuttings, as previously recommended. Making up the baskets should be commenced from the bottom, placing the young plants between the wires as the basket is filled. Work the rougher material to the edges, so that the fine soil will not fall between the wires. As they grow peg the growths round the basket till covered, when they may be allowed to assume their natural habit, hanging down, as in *uncinata*, forming a somewhat ball-shaped growth as *Galeottii*. The temperature should not be allowed to fall below 40° in winter. Being moisture-loving plants, an occasional syringing will be found beneficial.

The best sorts.—*S. apus*, a densely tufted species, also known as *densa*; when 1 inch or so in height it forms a beautiful green, cushion-like

it grows in exposed positions in Mexico, Texas, and Peru; *S. pilifera* (illustrated) is a closely allied species from Texas. Both are better increased by division; *S. Martensii* is fairly well known. The variegated form is pretty, but a new variety, *S. watsoniana*, recently sent out by Messrs. Sander, quite surpasses it. From its general habit it appears to be a very good sport from it. The silvery white variegation spreads throughout the plant.

Others are *S. Mettenii*, a supposed hybrid between *S. uncinata* and *S. inaequalifolia*; *S. plumosa*, a copiously branched species 6 inches to 1 foot in height. Growing in a light position it assumes a bronzy green colour; *S. rubella*, a sub-erect species, dark green, turning reddish with age; *S. uncinata*, an excellent basket plant, and also for covering bare walls. The trailing stems often grow 2 feet to 3 feet in length. The blue tints vary according to the position in which the plant is growing. All the foregoing can be grown successfully in a cool greenhouse. A. O.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

ESTABLISHING GORSE (H. Seymour).—The Gorse is very difficult to transplant, and we are not at all surprised at your failure. With regard to the seeds you have sown, are you sure no animals have been able to get at the tiny seedlings as they appeared, as both rabbits and cattle, especially sheep, are fond of the young growths before the spines become hard? We should advise you to sow again, using no manure, as it is not necessary, and fence the seedlings with wire-netting so that nothing can get at them. Or you could procure one-year-transplanted Gorse at once, and plant them rather thickly, as some of them are almost sure to die. You must be sure to stipulate particularly the plants you require; they will only cost you a few shillings a hundred.

BORDER PLANTS (J. S. Niven).—For a summer display you will find Ivy-leaved Pelargoniums, bronze and yellow Calceolarias, tuberous Begonias, and Fuchsias, with early flowering Chrysanthemums, among the more serviceable. For example, if in one border you sow seeds of *Tagetes signata pumila* as a margin, pink Ivy-leaved Pelargoniums at 12 inches or 15 inches apart, to be later on pegged down to the surface soil in the next line, and the Calceolarias (yellow) behind, the three would make a good show. In another plant at 2 feet apart such Chrysanthemums as *Horace Martin*, with scarlet Fuchsias or Geraniums, and occasional masses of double-flowered Asters from seeds. *Mignonette*, Stocks, Candytuft, *Nemophila*, Marigolds, *Godetias*, &c., are easily-grown annuals that may be sown in the open air, and if thinly sown produce good results. You would find the tuberous Begonias or Tiger Lilies do quite well in the shady border, and for an earlier display a few seeds of *Mignonette*, or Cornflowers, or white Asters would be very suitable.

NEGLECTED YEW HEDGES (L. G. B.).—You can treat your Box hedges in the same manner and at the same time as recommended for Yew hedges, but as your hedges form a background to herbaceous borders, you need only open a trench on the border side. The article you mention was written on the assumption that the hedge would be in the middle of a garden, and the roots interfere with other things growing near them; therefore the advice was given to cut the roots back and feed them well at home. What you suggest doing re forming a wall to keep the roots back will probably answer to a certain extent, more especially if you feed the hedges well on the side farthest from the borders, where you say the roots can ramble as they please. By cutting the roots back on the border side, and leaving them alone on the other, you will find they will be a long time before they extend far into the borders. On the reverse side of the hedges manure should be spread thickly enough to well cover the ground, and be forked in, as Yew and Box will stand any amount of feeding in reason. The end of April and beginning of May were meant by late spring.

EVERGREENS IN POTS (Novice).—The only evergreen shrub that flowers between the times stated in your question is the *Laurustinus*, and that would be too tender for your locality. We think that the *Aucuba* would suit your purpose best, as it is just at home in a fairly shaded position, and the bright red berries are retained throughout the winter. The plants will ultimately reach a height of 6 feet if secured to a stake and prevented from spreading too much at the base. It must be borne in mind that the *Aucubas* are dioecious—that is, the male and female flowers are borne on different plants—hence it will be necessary to have individuals of both sexes in order to ensure a crop of berries. One male to five or six females will be sufficient, and, in order to ensure fertilisation when the plants are in flower, the pollen from the male blossoms may be transferred with a camel's-hair brush to the stigma of the female blooms. A bright sunny day should be chosen for this. The *Aucuba* is one of the readiest of all evergreen shrubs to transplant, so that you may obtain the plants at once and pot them. Apart from being supplied with water at the roots these freshly transplanted evergreens are greatly benefited by an occasional syringing should the weather be hot and dry.

CARNATION GROWING (Novice).—Throughout the summer and during the early part of the autumn you may depend upon your outdoor Carnations, but during the greater part of the year your supply must be drawn from plants grown in the greenhouse. For late autumn, winter, and spring flowering the principal varieties grown are those known as Tree Carnations, many beautiful kinds having been of late sent us from America. These last are rapidly gaining in popularity, one desirable feature being their more robust constitution compared with some of the older kinds. These Tree Carnations are generally propagated by cuttings taken in February or March, inserted into pots of sandy soil, plunged in a gentle bottom-heat, and kept shaded till rooted. They are then put singly into pots $3\frac{1}{2}$ inches or 4 inches in diameter, according to their vigour, the compost used being principally loam and sand, with a little good leaf-mould. Directly the roots take hold of the new soil the plants should have plenty of light and air, and the growing points must be pinched out in order to ensure a bushy plant. Then, before the plants become pot-bound, they must be shifted into larger pots, the strongest growers being put into pots 6 inches in diameter, and the weaker ones into pots 1 inch less. Towards the end of May they can be put into a cold frame, keeping the lights off when favourable, but employing them as a protection from heavy rains, for Carnations much resent an excess of moisture. Up to the middle of July any shoots that show a tendency to flower should be pinched off, the object being to encourage good free growth. Towards the end of August the plants must be taken into their flowering quarters, and that should be, if possible, a light, airy structure where a temperature of 45° to 55° can be maintained. A fairly dry atmosphere is very necessary. A few of the best varieties of Tree Carnations are: *Alpine Glow*, salmon-pink; *Cecilia*, yellow; *Enchantress*, light pink; *Fair Maid*, rose-pink; *Flamingo*, scarlet; *G. H. Crane*, scarlet; *Governor Roosevelt*, rich crimson; *Harry Penn*, crimson; *Lillian Pond*, white; *Mrs. Thomas W. Lawson*, rich cerise-pink; *Norway*, white; *Primrose Day*, yellow; *Sir R. Waldie Griffith*, orange-amber; *Uriah Pike*, deep crimson; *Winter Cheer*, bright red; and *William Robinson*, scarlet.

IRIS STYLOSA NOT FLOWERING (E. A.).—The place where *Iris stylosa* flowers best is against a wall with a south exposure, and which has hot-water pipes on the other side, such as the wall of a warm greenhouse. It will, however, flower well planted close up against an open south wall where there are no pipes behind it. It should be planted so that the roots are in contact with the

wall, pressed closely up against it. After being transplanted *Iris stylosa* will often miss flowering for one or two years, but when it is established, and in the position indicated, it will produce an abundance of bloom annually. Manure is not required, a good sandy loam being most suitable. Some forms of this plant bloom much less freely than others, the most floriferous being the typical form with erect, broad leaves, and the form with narrow leaves (var. *angustifolia*). The variety *speciosa* has the largest and most richly-coloured flowers, but does not usually flower so freely.

ORANGE TREE IN POT (F. G. Parsons).—It is difficult to assign a cause for the leaves dropping. It would seem that something was wrong with the roots, as another tree close by is in good health. Perhaps the drainage is at fault. It is a good plan to mix half-inch bones and old mortar with the soil when potting, as they help to keep it open. We can only suggest that either the tree has been allowed to get dry at the roots or, owing either to bad drainage or to unsuitable soil, the roots are unhealthy. Being in a draught or a severe attack of scale might cause the leaves to fall. It is most important to keep the leaves of Orange trees clean, and to this end it is advisable to syringe the trees once a week with a weak solution of paraffin. Try spraying with a paraffin emulsion for scale; the XL All Insecticide is good. The trees require careful pruning, so as to obtain short sturdy wood and an open form of tree; better results are thus obtained than from trees allowed to grow dense. Strong woody shoots, if not required to form the tree, should be cut out so that they do not rob the others.

SMALL GARDEN (Ernest E. Nihell).—It is necessary to make the soil firm about the roots by treading, and to spread out the roots carefully with the hand. You do not say whether you did this, otherwise your planting seems to have been all right. It is preferable to use well-decayed farmyard manure. You must prune them now; cut back each shoot to within three buds of its base; this will cause strong shoots to grow during the summer, then the following year you need not prune so hard. It is best to do this after planting, however, if you want good strong plants. Why not keep all the Roses together on one side of your garden, and make a mixed border on the other side, planting such things as Anemones, Lilies, Hollyhocks, Lupins, Delphiniums, Carnations, Gladioli, Sweet Peas, Sunflowers, Campanulas, Pinks, &c. You would, we think, find this plan to be more effective than the present one. The Hop is too strong-growing unless you have plenty of room. Try *Clematis Jackmani*.

MELON LEAVES DISEASED (Plymton, W.).—The leaves were in such a condition that it was impossible to say what was the matter with them. Soft leaves like those of a Melon, if laid one over the other, wrapped in a piece of whitey brown paper, and placed in an ordinary envelope, cannot be expected to travel safely by post.—G. S. S.

FREESIA BULBS (Verax).—The opinion of several different persons who have grown bulbs of *Freesia refracta alba* imported from the Cape is, that while the leaves are particularly developed, they do not flower so freely as those grown in the Channel Islands; in fact, these last are by most growers regarded as more trustworthy than any others. True, the bulbs themselves are not so large as those grown in the south of France, South Africa, or Bermuda (these last are the largest of all); but the return in the way of flowers is superior to the rest. The bulbs from South Africa which are being sent here this year should be useful in giving flowers later in the season than usual, but at the same time after the flowering period is over, there is not much time to complete their growth, hence the second season's display is not likely to be a very good one. We ourselves imported

some bulbs of *Freesia Armstrongii* from South Africa, and though they flowered moderately well the first year, the second season there were scarcely any flowers, and it took two or three years for them to become acclimatised. E.

ANNUALS FOR CANARY ISLANDS (Grace Money). Any of the following, we think, would be suitable: Tall-growing.—Eckford's Sweet Peas, Alonsoa Warscewicksii, Sutton's fine-coloured Snapdragons, *Nicotiana sylvestris* and *N. Sanderae*, *Cosmos bipinnatus*, and *Nigella Miss Jekyll* (Sutton). Medium.—*Schizanthus Wisetonensis*, *Calliopsis Drummondii* and *C. tinctoria atrosanguinea*, *Godetias*, *Balsams*, *Nemesia strumosa*, and *Mignonette Machet*. Low-growing plants and trailers for baskets, &c.—*Tropæolum lobbianum* Prin. Vict. Louise and others, *Eschscholtzias*, pink and white varieties; *Mesembryanthemum pomeridianum*, primrose, and *M. tricolor*, *Leptosiphons*, *Portulacas*, *Maurandya barclayana*, and *Lobelia tenuior*. Seeds sown in small pots or pans, as convenient, should be pricked off singly, not in bunches, as soon as the seedlings have a few leaves, into boxes, and later on transferred into flowering pots. Small tubs or very large pots do best for Sweet Peas; three seedlings of one colour are very effective. They should be sown in position without transplanting. As a rule, 5-inch pots should be large enough for single plants like Balsams or Stocks, but it depends upon habit, and sometimes two or more plants look well grown together. The main point is to sow very thinly. Shading from hot sun is absolutely necessary in all early stages of seed-raising, though seedlings must have as much direct light as possible as they grow, otherwise they get drawn. It is also essential to keep the soil fairly moist at all times, but not too wet while the seedlings are young. There is less risk of damping when the seedlings are not crowded. It is difficult to give precise advice as to some of your enquiries. Growing plants generally do well in sunshine if well supplied with water at the roots, but plants in flower last much longer in cool shade. *Mesembryanthemums* and *Portulacas* enjoy full sun, however when in flower, and the seeds should be sown where they are to remain.

POT-POURRI OF ROSES (Major Parsons).—The simplest recipe we know for Pot-pourri of Roses alone is to be found in "Home and Garden" (Longmans). A reprint of the chapter, "The Making of Pot-pourri," appeared in our columns some little time since, and contains very full and suggestive details of the art, but we give the short recipe alluded to as follows: Put alternate layers of Rose leaves and bay salt in any quantity you please in an earthen pot. Press down with a plate, and pour off the liquor that will be produced every day for six weeks, taking care to press as dry as possible. Let the mass be broken up, and add the following ingredients, well pounded and mixed together: Nutmeg, $\frac{1}{2}$ oz.; Cloves, Mace, Cinnamon, gum benzoin, Orris root (sliced), 1 oz. each. Mix well with a wooden spoon. The Rose leaves should be gathered on a dry, sunny afternoon, and the bay salt roughly crushed before using. Orris root may be replaced with advantage by good Violet powder.

SWEET PEAS (J. G.).—If your Sweet Peas have had plenty of air during their earlier stages, they may in most districts be planted out by the middle of April. Liberal treatment is in their case very essential, and a good plan is to take out for each clump a hole quite 2 feet deep and as much in diameter. Then put a layer of cow manure in the bottom of the hole and work back the soil, incorporating with it at that time some good natural manure. Make this moderately firm before planting. A dozen plants form a very effective clump, and they should be arranged about 6 inches apart. They must be staked as soon as planted, as if the young plants drop into a recumbent position it is often a difficult matter to induce them to grow away freely.

TARRED ROPE FOR FESTOONS OF RAMPANT ROSES (*P. H. J.*).—Chains hanging gracefully from post to post will certainly be much better than tarred rope. As the Roses would be tied only lightly to the chains, it is not necessary to wind tarred twine or any other material around them.

DAHLIAS FOR CUTTING (*J. H. A.*).—Cactus: Mrs. Brousson, J. C. Quennel, Violetta, Eva, General French, Princess, Coronation, The King, Aunt Chloe, Britannia, Countess of Lonsdale, and Mrs. Winstanley. Singles: Leslie Seale, Victoria, Miss Robarts, Polly Eccles, Formosa, Snowdrop, Robin Adair, Beauty's Eye, Columbine, Peacock, Tommy, and Darkness.

ELDERS AND PLANTS BENEATH THEM (*Novice*). The much cut-leaved Elder is in all probability that known as *Sambucus racemosa tenuifolia*, which is far less vigorous than the golden-leaved one referred to. On this account, and also owing to the foliage being finer and thus allowing more light to penetrate underneath, the different plants are not affected by it as they are by the more robust Elders. You may without any risk plant the rooted slips of your Elder to train against the wall, as they will not in any way affect the other plants growing in the bed at the foot thereof.

ANNUALS ON RECENTLY-MANURED SOIL (*Novice*).—Hardy annuals are not likely to grow rank and flowerless on recently-manured ground, unless the manuring has been carried to great excess. Among those that can be recommended are Asters (dwarf), Candytuft, *Clintonia pulchella*, *Dianthus chinensis* in variety, *Eschscholtzias* of sorts, *Gilias* of sorts, *Kaulfussia amelloides*, *Leptosiphons* of sorts, *Limnanthes Douglasi*, *Linarias*, *Mignonette*, *Nasturtiums* (dwarf), *Nemophila insignis*, *Phacelia campanularia*, *Phlox Drummondii*, *Saponarias* of sorts, *Senecio Jacobaea*, Stocks (dwarf), *Tagetes* (dwarf), *Viscaria* of sorts, and *Virginian Stocks* in different colours.

DAFFODILS (*J. L. S.*).—It is quite true that material deterioration does follow the persistent regular plucking of Daffodil foliage when this is used with the flowers arranged in vases and the like. The only way out of the difficulty is to pluck the foliage of the more common sorts generally, and these being easily replaced would involve practically no loss. To our thinking there is nothing suits the Daffodil so well as its own leaves, and, of course, the expert would not think of employing the narrow leafage of any of the poeticus forms when arranging flowers of the Sir Watkin or Emperor types. In the matter of arranging foliage with these things, individual taste goes a long way, and we have seen small sprays of Garrya, the twiggy bits of Acers, and even small bits of green Ivy employed in the most effective way. Foliage should be simply employed as a fill, and to throw into greater relief the beauty of the flowers.

SULPHATE OF AMMONIA (*A. C. L.*).—Without doubt sulphate of ammonia is a quick-acting and an effective manure dressing to plants when the object is to secure luxuriant leaf growth. It does little towards making woody matter, or the production of fruits, seeds, or tubers, and unless the soil contains naturally, or has had given to it in some way phosphate and potash to help create those elements sulphate of ammonia alone will not do so. You may find very good results from dressing your Strawberries and Potatoes with a sprinkling crushed very fine, at the rate of 2lb. per rod, once a fortnight, and then well hoed in, but not applied to Strawberries after fruit begins to colour. Too frequent applications would be rather harmful than good.

SHRUBS FOR CLAY AND LIME SOILS (*A. G. W.*). In giving the list asked for we have slightly exceeded the number wanted, so as to allow you to make a final selection. For chalky soils you have the choice of the following: Evergreen—

Barberis Darwini, orange flowers, May; *Barberis stenophylla*, golden yellow, May; *Hollies*, green and variegated; *Viburnum Tinus* (*Laurustinus*), white, autumn and winter. Deciduous—*Deutzia crenata flore-pleno*, white, June; *Kerria japonica*, yellow, summer; *Philadelphus coronarius*, white, May; *Pyrus japonica*, red, early spring; *Ribes sanguineum* (Flowering Currant), red, spring; *Viburnum Opulus sterile* (Guelder Rose), white, spring; *Weigelas* of sorts, spring and summer. Three good varieties of these are *Abel Carrière*, pink; *Candida*, white; and *Eva Rathke*, red. For clay soils the following: They are all deciduous—*Cornus alba Spæthi*, golden variegated leaves, bright red bark in winter; *Forsythia intermedia*, yellow flowers, March and April; *Hydrangea paniculata grandiflora*, creamy white, latter part of August or even later; *Rosa rugosa*, red, summer; *Spiræa arguta*, white April; *S. Douglasi*, rose, summer; *Spartium junceum* (*Spanish Broom*), golden yellow, summer; *Syringa* (*Lilac*) of sorts. Two good distinct kinds are *Marie Legraye*, white; and *Souvenir de L. Spath*, purple.

EVERGREEN PERENNIAL ("55").—For a dwarf evergreen for edging some of the following would be suitable: *Pink Mrs. Sinkins*, white; *Campanula muralis*, blue; *C. pumila*, blue; *C. p. alba*, white; *Aubrietia deltoidea grandiflora*, violet; *A. græca*, lilac-blue; *Phlox amœna*, rose; and *P. Nelsoni*, white. These are dwarf, of easy culture, readily increased by pulling to pieces, and have a flowering period of about four weeks duration, after which the tuft is a very pleasing feature. We do not know any hardy perennial with all the attributes you name. If we were asked to name some nearly perpetual-flowering plants for a bed we should say yellow-tufted *Pansy Bullion* or the pale yellow *Ardwell Gem*. Either of these flower continuously for many weeks, and may now be planted from rooted cuttings. We do not, however, recommend these as suitable companions for the above in any one bed. Probably one of the most satisfactory arrangements for a single bed would be a thin groundwork of tufted *Pansies* planted in autumn for spring flowering, and in May insert between the plants tuberous *Begonias* for summer and autumn flowering. The first, when increased by means of cuttings, last for years, and the latter, if lifted after the early frosts of autumn, only require a cellar to keep them safe and well for another year.

OAK LEAVES AS MANURE (*J. W. J.*).—*Silene virginica* is a hardy perennial, growing to a height of about 16 inches, has bright crimson-scarlet flowers of good size, which open in May and June. Oak leaves make the very best of leaf-soil when well decayed. But Oak leaves should be well decayed before being used as manure. Put them into a heap in the open after well wetting them with house slops or liquid sewage. Some soot may also be advantageously put over them as they are mixed from time to time. The turnings and moistenings, with occasional soot applications, should be monthly, as such moving facilitates decay. Without doubt you have vastly increased the value of your garden soil by the course you have taken in clearing it of rubbish. It may be somewhat light and porous, but in hot weather that drawback may be somewhat alleviated by putting amongst the crops or plants mulchings of manure.

WALL FRUIT TREES AND FLOWERS (*K. B. W.*). It is difficult on a fruit tree border that is but 3 feet in width to have any other description of crop, even of flowers, without doing the trees material injury. In proper walled gardens, where fruit trees are grown on walls, as yours is, it is the rule to keep from 3 feet to 4 feet in front of the trees always uncropped, and, further, that space is in hot weather commonly mulched with long manure to enable the soil to retain moisture. If the surface soil be dug with a spade, or even with a fork, much harm is done to the fine surface roots of the trees, and when such

treatment tends, as is commonly the case, to drive roots down into poor subsoil the trees soon suffer. That the border looks bare there can be no doubt. Could you make an edging to it all round of boxes like those placed in windows, and sow in them *Mignonette*, or plant *Musk* or *Lobelia*, or any low-growing plants that do not obstruct the sun's rays? Failing that, sow nothing deeper rooting than a few dwarf-growing hardy annuals.

ERIGERON COULTERI (*B. J. A.*).—*Erigeron Coulteri* grows and flowers well in poor sandy soil. That in which you have it planted is evidently too heavy and rich. Take up the plant and work in plenty of grit with the soil, and also provide drainage in the shape of broken bricks, so that water can pass away freely. Unlike many other Rocky Mountain plants, this is a very free grower, and spreads rapidly, but it is never so happy as when wedged between large pieces of stone, into the crevices of which it soon forces its way. A north-western aspect has been found most suitable, where it only receives the late afternoon sun. Plenty of water is required in the growing season. An open, unsheltered position is not suitable for this plant, and it frequently gets injured during the winter.

GERMINATING ONION SEED (*Veritas*).—What you read in an old gardening paper in 1861 was probably meant to indicate that hot water applied to Onion seed enabled the germinative power of the seed to be tested, because when allowed to remain in the water for just a few minutes, and then removed, sprouts of a minute character would soon appear if the seeds were fertile. You may, perhaps, do better if you wish to test seed in that way. Count fifty seeds, then dip a piece of flannel into very hot water, spread it out, and place the seeds evenly upon it, covering it up at once to preserve the warmth. If the seed is good growth soon follows. It is well to point out, however, that tests of this kind are not always trustworthy, because soil conditions and external temperatures are so different, and many seeds that may germinate in warmth would fail to do so in the soil. We should hesitate to sow seeds soaked ever so briefly in hot water, lest the change to such diverse conditions should lead to premature decay.

ROSE GRUSS AN TEPLITZ AS A CLIMBER (*Rev. G. C. K.*).—This brilliant and fragrant Rose is certainly more adaptable for pillar or wall than it is for bedding, although for the latter purpose it is very useful when managed right. As you have transplanted your Rose, you should cut back its growths this spring about half their present length. Keep the new growths tied upright to the pole, or nail them on the wall, and by the autumn considerable growth will be made, which should blossom well at the ends of the shoots and also along the growths. Next season very little pruning will be needed; indeed, its future treatment will be to retain all new shoots almost their full length, shorten back laterals to from 2 inches or 3 inches to 1 foot in length according to their strength, and every year cut down entirely one or more of the oldest growths, which will compel new wood to spring up from the base. This variety being so very early in starting, is liable to have the new shoots injured by spring frosts, and it is advisable to give them the protection of evergreen boughs, or shade with mats from sun following a frost. This will often prevent much injury and consequent disappointment. This Rose makes a beautiful half-weeping standard; indeed, so good is it for this purpose that it must be found ere long in every garden in this form. For bedding we should advise annual lifting in autumn. Plant in rather shallow soil if possible, and do not encourage rank growth by manuring too much. Cut the plants back to 3 inches or 4 inches from the ground every season. If any growths during summer are too long, bend or peg them down, but the transplanting will check the too exuberant growth. The plants may be put back into the same bed if desired.

FLOWER BORDER (P. C.).—It is rather late to begin planting to expect to have a really good effect throughout the summer and until October; still, it is not too late. You must, in order to produce an effect quickly, well dig and manure the border. We should prefer to have it 6 feet wide the whole length, but in that matter, of course, you will do as you think best. Partly to cover the old wall you might use the best climbing Tropæolums and Hop. Keep the plants in groups of colour, do not mix them indiscriminately. The following would be as useful as any. You will do well to buy good strong clumps of each. If you do this, and plant them in rich ground, you will probably be satisfied with the result. Plant fairly thickly as you only want the display this season. *White:* Japanese Anemones, Phlox Mrs. Jenkins, Campanula persicifolia alba, white Lupins, Galega, Rocket, Lilium speciosum Krætzneri, Hollyhock, and Sweet Pea Dorothy Eckford. *Blue:* German Irises, Lupins, Delphiniums, Campanula persicifolia, Canterbury Bells (blue, rose, and white), Aconitum, Anchusa italica, Sweet Peas Lady Grisel Hamilton, Captain of the Blues, Navy Blue, and Michaelmas Daisies. *Yellow and Orange:* Various Sun-flowers (small-flowered), Golden Rod, Gaillardias, Marigolds, Montbretias, Day Lily, Hollyhock, Coreopsis, Evening Primrose, Lilium croceum, L. umbellatum, L. Hansonii, L. tigrinum, L. szovitzianum, and Sweet Pea Hon. Mrs. Kenyon. *Red:* Gladiolus brechenleyensis, Lobelia Queen Victoria, Phlox, Poppies, Geum coccineum, Lychnis chalcedonicum, Monarda didyma, Hollyhock, Carnations, Pentstemon, Lilium pomponium, L. chalcedonicum, L. speciosum Melpomene, and Sweet Pea King Edward VII. You can plant Lilies in the border among the other plants. We should prefer doing this to having them in pots. Those we have mentioned will be most suitable. You might grow L. longiflorum (white) in pots and plunge in the border. Make big clumps of Sweet Peas and train them over pyramids of sticks. Use Convolvulus in the same way; they add to the effect considerably. Use plenty of annuals also. Sow these, say, in the middle of April. Linum grandiflorum rubrum (red), Lavatera trimestris (rose), Candytuft (various), annual Chrysanthemums and Sun-flowers, Virginian Stock, dwarf Nasturtiums, Clarkia, Cornflower, Phacelia campanularia (blue), Swan River Daisy, Larkspur, and Nigella are all good. Make big patches of them.

NAMES OF PLANTS.—C. W. C.—Corydalis bulbosa.—W. W.—Narcissus variformis.—*Letter unfortunately mislaid.*—Five forms of Narcissus: 1, N. incomparabilis fl. pl.; 2, Bicolor Horsfieldi; 3, Incomparabilis Sir Watkin; 4, Emperor (small flower); 5, Incomparabilis Cynosure.—Stock Hill.—Both Nos. 1 and 2 are forms of Cupressus lawsoniana, an exceedingly beautiful conifer, and very variable when raised from seed.—S. H. H.—No. 6: The Fern is Polypodium (Phymatodes) Billardieri.—M. A. W.—1, Strobilanthes Dyerianus; 2, Panax Victoria; 3, Begonia Dregei; 4, Abutilon megapotamicum, also known as A. vexillarium. It is a great pleasure to receive such good, carefully packed specimens as yours.—W. H.—Narcissus odoratus.—J. M. P.—Chionodoxa Lucillae.

NAMES OF FRUIT.—Apples.—1, Nelson's Codlin; 2, Golden Noble.

DEATH OF MR. WILLIAM PAUL, F.L.S.

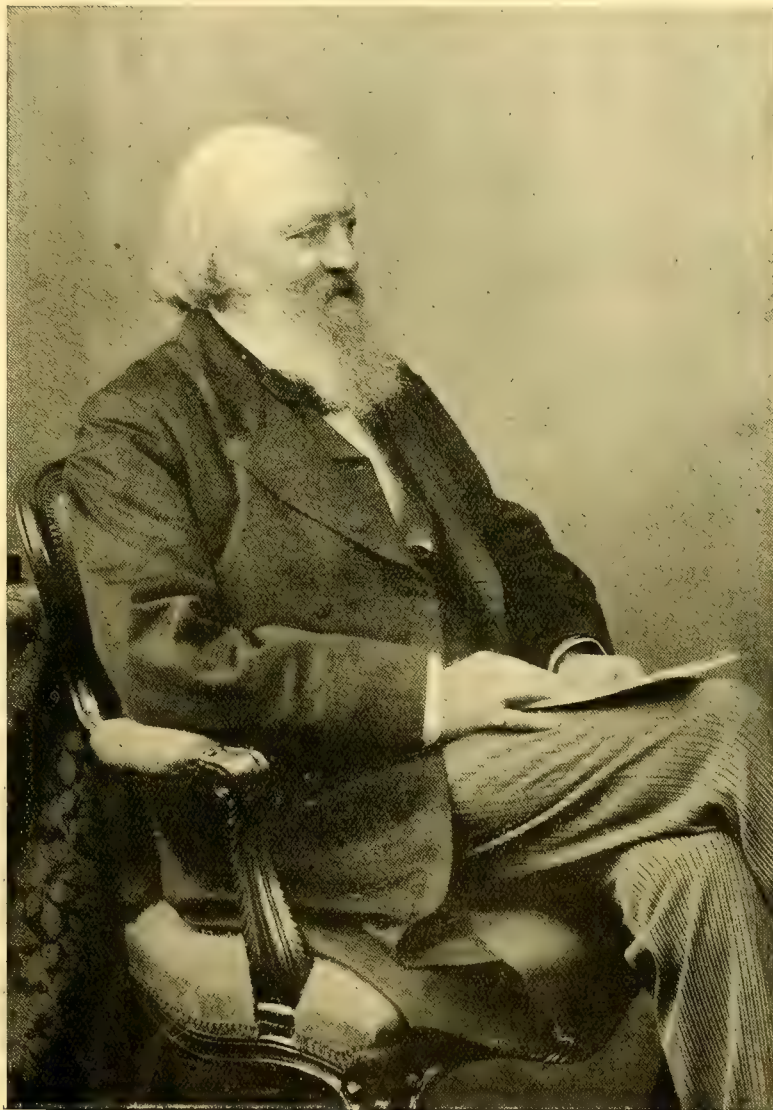
THE name of William Paul of Waltham Cross is renowned throughout the horticultural world and beyond it, and the news of his death, at the age of eighty-two, will cause many sincere regrets. One by one the great horticulturists of a past age are passing from the ranks of the living—Dean Hole, another rosarian whom we sadly miss, and now William Paul, whose name will go down to posterity through the seedling Roses

"No worker in the world of flowers so richly merits a place in our gallery of notable horticulturists as Mr. William Paul, the veteran rosarian of Waltham Cross. He is one of the leading Rose raisers and growers of the present day, and in his beautiful nursery, stretching from the high street of the town to the Great Eastern Railway, masses of Roses—new, old, and seedlings—perfume the air through the summer and early autumn months. It is a lesson of no small value to wander amongst the Roses upon a sunny July day, when the nursery is coloured with the flowers of a hundred kinds, here the rich apricot of W. A. Richardson, there the tender Mme. Hoste, whilst by the edge of grass walks climbing Roses tumble in delightful profusion over pillar and arch.

"The work of Mr. William Paul is revealed in all this glorious mass of England's queenly flower, for here is the record of a life well spent for horticulture and in the allied branches of this industry. For upwards of fifty years this renowned rosarian has lived and worked amongst Roses.

"Mr. Paul's name is closely associated with raising and introducing new plants, not of the Rose only, but of zonal Pelargoniums, Hollyhocks, Phloxes, Camellias, and other flowers; and with regard to fruits and hardy trees and shrubs, collections of unusual interest and importance have been formed at Waltham to add to the cosmopolitan nature of the nurseries. The writer enjoys a visit to Waltham Cross more thoroughly in the fulness of Rose-time than at any other season of the year, and of course this is natural. There is something satisfying in the burdens of odorous blossom. Some new Rose, perhaps, is flowering for the first time, and one learns much about its habit and freedom; or a large group of one of Mr. Paul's own seedlings is in beauty, maybe the delicate lemon Tea Medea, the varied-hued Corinna, the China Rose Duke of York, Queen Mab, or one of the latest of all Tea-scented Roses, Enchantress, which has already entered the gardens of all ardent rosarians.

"But we are wandering from the path. It is Mr. Paul himself that must be written of now, and the good work he has accomplished for English gardening through a long and happy life. Of his success as a raiser we have already spoken, but Mr. Paul possesses considerable literary gifts. A list of excellent works has been written by him at various periods of his life. 'The Rose Garden' was first published in 1848, and this has reached its ninth edition, evidence of its popularity and usefulness as a treatise upon the history and culture of the



THE LATE MR. WILLIAM PAUL, F.L.S.

which have been raised at Waltham Cross, and have given beauty to many an English garden—Corinna, Queen Mab, sulphurea, corallina, and a host of others. In THE GARDEN of March 3, 1900, the late eminent rosarian was included amongst the "Workers Among the Flowers," and no horticulturist was more diligent than he in spreading a love of gardening and hybridisation than Mr. Paul. What was written of him in that year may well be reproduced now:

flowers entwined around the life of the author. Other books upon horticultural subjects have been written, and various gardening journals have from time to time received the benefit of his wide experience and mature judgment. Much could be written of the papers read before the Society of Arts, the Royal Society of Literature, the British Association for the Advancement of Science, the Royal Horticultural Society, and kindred institutions, as the subjects are varied, interesting, and instructive, but the principal lectures and papers are embodied in 'Contributions to Horticultural Literature, 1843-1892,' from his busy pen. In 1858 the National Rose Society was formed, and that year marked an epoch surely in the history of horticulture in Britain. Among those who joined round the Dean of Rochester in starting this interesting association of Rose amateurs and professional growers was our friend. The year after, whilst holding part of the original nurseries, he founded the now world-famous establishment in the quiet Hertfordshire town. Those who remember the International Horticultural Exhibition in London in 1866 will recall the glorious Roses from Waltham Cross, flowers which won many prizes for their freshness and beauty. This was probably the most important exhibition of plants, flowers, and fruit ever held in these isles, and we shall not easily forget the rare evergreens and plants from Waltham Cross at the special exhibitions at Regent's Park (Royal Botanic Society), the Crystal Palace, and elsewhere, a reputation that has been strengthened by the displays of recent years. The exhibit of pot Roses at the Temple show of the Royal Horticultural Society last year was an instructive representation of the Rose as a pot plant and otherwise, varieties modern and long-established in our gardens forming a group of flowers of wonderful colour, and drenching with their perfume the spacious tent.

"With such a record it is not surprising to know that Mr. Paul is a Fellow of the Linnean Society, and one of the oldest Fellows of the R.H.S., besides a member of many other associations at home and abroad.

"It is interesting to read in his contributions to horticultural literature an article written to *The Florist* of May, 1869. In those days many flowers were in the hands of men who considered that floricultural beauty was displayed in petals patted upon green boxes at the exhibitions. This was distorting Nature in no undecided fashion, and to write against such a travesty of everything that was beautiful in the flower was to incur the heavy wrath of the school of florists of that day. In his article called 'Floriculture and Millinery' Mr. Paul writes the following words, which may be applied sometimes even in these days of supposed greater refinement in the use of the flowers of garden and field: 'We are free to admit that a plant must be tied up, and this is better done neatly and with taste than in a careless or bungling manner. Flowers, too, should be so placed in their stands that they may be well seen, and the colours should be so assorted and arranged that they may enhance rather than detract from the beauty and effect of its neighbour. Thus far we concede—nay, consider necessary and commendable. But the flattening of Pansies by pressure to meet the florist's canon that Pansies should be flat, the gumming and brushing of the petals of Pelargoniums, the artificial packing of the

petals of Carnations, the building up of Dahlias, the pinning of Hyacinths—all these practices are in our judgment of questionable taste, and of even more questionable honesty. By the use of them we may approach more nearly to the florist's ideal, but we are reaching that ideal by trickery and deception rather than by horticultural skill and honest labour.' This is pleasant reading.

"In the course of a long life this famous rosarian has been associated with most of the well-known writers and workers in the field of horticulture, including Loudon, Dr. Lindley, Sir J. Paxton, Dr. Hogg, Thomas Moore, and Robert Fortune."

The volume of *THE GARDEN* for midsummer, 1903, was dedicated to Mr. Paul. We who have enjoyed many happy hours amongst the books with Mr. Paul know how great is his loss to English horticulture. His collection of horticultural and scientific works was famous for its extent and rarity of editions. A long and happy life has been spent at Waltham House, once the residence of Anthony Trollope, and we know that his family has the sympathy of all who have admired the work accomplished by the late famous horticulturist. Mr. Paul was a man of considerable culture, dignified presence, and much kindness of heart. We shall miss him, though since the death of his wife a few years ago his health has gradually failed. A paralytic stroke in June last was the beginning of the end which came quietly on the last day of March. The funeral took place on the 4th inst. in the family vault in Cheshunt Cemetery.

A LETTER FROM MENTONE

THE reports about the weather in the Riviera in the London papers have, I think, not been quite just. It is true that the frosts at the end of December seriously affected the Roses, which until that period were full of flowers and buds, and it also crippled the Violets and other flowers; but on my arrival on January 14 I could not see much serious damage to the vegetation generally. In the valleys the cold blasts had stripped the foliage from the Lemon trees, destroying the year's crop except where sheltering rocks or trees had saved them.

The Oranges seem to have suffered less, and the small-leaved Mandarin and Tangerine appeared quite unharmed. As in England, the frost has been more severe in certain places; some Eucalyptus and Ficus macrophylla had their leaves scorched, while others were quite untouched. Large bushes of *Datura* were cut back, but on the stone walls and houses Geraniums, especially the Ivy-leaved kinds, with *Heliotrope* were not injured, and only a few of the more tender Aloes are frosted.

The promontories of Cap Martin, Monte Carlo, and La Mortola have practically escaped, and these fine gardens, although flowers are later than usual, are, as I write, very beautiful. The *Cinerarias*, *Primula sinensis*, *Cyclamen persicum*, and Pansies, with *Freessias*, *Anemones*, and Roman Hyacinths are very bright. Residents say that it is seventy years since such cold weather has been experienced. It is said that no rain fell from December 10 to January 17, and again from February 20 to March 24, but the water deficiency was not so serious as was stated.

Vegetables are abundant; there are salads in great variety. Of fresh fruits there are good *Reinette du Canada* and *Mela Carle* Apples, Montignan Grapes, and a decent Pear which I have failed to get the name of. It is said to come from Spain, but the Apples are Italian, and

heavily-laden trollies of these in baskets of 40lb. to 50lb. each are put on rail here for Berlin and Paris. It is singular that the growers of Stocks confine themselves mostly to white, pale blush, and pink, omitting those glorious scarlet and violet shades we like so much in England. The Carnations and Stocks are grown in beds about 4 feet wide, and are covered with rush mats or canvas on cold nights. The best are, I think, grown in frames under glass, as are also the exquisite Turban *Ranunculus*. The supply is, perhaps, less than usual, and the fêtes and battle of flowers make them expensive to purchase. A few forced Roses, like *Mme. Gabriel Luizet*, are in the shops, and the glorious *Acacia dealbata* is strongly in evidence. The trees of this rival our *Laburnums*, and other species are very showy.

The charm of this district undoubtedly lies in the tropical vegetation. The only Palms which seem to be tender are *Rhapis*, *Seaforthia*, and *Latania*. During the drought of June to October all the grass dries up, and a yearly fresh sowing is made in November. This is now a beautiful deep green. Besides the flowers named, there are *Megasea cordifolia* and *Primula obovata*. Violets *Victoria* and *Princess of Wales*, with a pretty dwarf Virginian Stock, are most effective, and for an edging *Ionopsisidium acaule*, with its neat grey flowers, and *Daisies*, which, being from seed, are not so effective as our British sorts of one colour.

The American Aloes, Agaves, Yuccas, and succulents, and the other semi-tropical trees, and the climbers on pergolas and on the wonderful stone walls I must endeavour to deal with in another paper.

In conclusion, I can only say that for horticultural interest and entire change from British gardening methods, this district, with its azure sea, bold mountains, Olive orchards, and terraced vineyards, is altogether delightful.

Mentone.

GEORGE BUNYARD, V.M.H.

LATE NOTES.

"The Horticultural Directory," published by the *Journal of Horticulture*, 12, Mitre Court, Fleet Street, is as indispensable to the gardener as a "Bradshaw" or "Post Office Guide" is to the commercial man. It contains a complete list of the gardens and gardeners in the United Kingdom, and is so well arranged that to find out all other particulars about a certain garden, such as county, nearest town, distance from station, proprietor's name, gardener's name, &c., it is necessary only to know its name. In addition to this information the principal nurserymen, seedsmen, and florists at home and on the Continent are given, as well as other useful addresses. The plants certificated by the Royal Horticultural Society in 1904 are also described. The price is 1s.

Covent Garden Market.—Of Roses the best varieties to be now seen are *Bridesmaid*, *Mme. Abel Chatenay*, *Caroline Testout*, *La France*, *Mrs. J. Laing*, and *Kaiserin Augusta Victoria* (a fine white Rose for decorations in which long stems are wanted). *Niphetos* is very charming, and, though thin in the stem, it still remains a favourite. *Liberty* quite takes the lead as a crimson Rose, yet the old favourite, *General Jacqueminot*, is still in demand, the only fault being that it loses its colour so soon.

A note on Violets.—These are now very plentiful in the garden. *Princess of Wales* is the best blue we have. This and *La France* are general favourites. We do not seem likely to get any home-grown Violets to take the place of the double *Parma* from France, which we have noticed have been very fine this season. They are popular for wedding bouquets, memorial wreaths, crosses, &c., also for sprays and button-hole bouquets. Some English doubles are seen, but they are certainly not equal to the French.

Bowdon Amateur Horticultural Club.—The spring meeting of the Bowdon Amateur Horticultural Club will be held on Friday, the 28th inst. Miss Hopkins, F.R.H.S., of Mere, Knutsford, will read a paper on "Rock Gardens."

Do Potatoes deteriorate?—The discussion on this topic, which was conducted by the Royal Horticultural Society's scientific committee on the 28th ult., did little after all to advance knowledge on the subject. It is so evident that it is more a matter for continuous experiment than for academic discussion. One great fact in relation to Potatoes stands out prominently. It is that never were they more abundant or cheaper than now; indeed, many growers cannot sell at any price. A striking comment is that on the shameless and unworthy efforts made last year to inflate prices of certain varieties far beyond all precedent. One reason why it is assumed that Potatoes deteriorate, and it applies equally to all varieties, from which new varieties can be produced in great abundance and rapidly, is that the natural desire to see what may be the merits or otherwise of these new ones causes old ones to be ignored, thus to pass out of cultivation, and to be unjustly classed amongst the deteriorated just because they are neglected. It was freely assumed that plants propagated naturally were necessarily subject to deterioration. There is no evidence of such decay in tuberous Artichokes, the Chinese Artichoke (Stachys), in Seakale propagated by root cuttings, in Dahlias or Peonies having fleshy or tuberous roots, and plants increased by division. Strawberries or Raspberries do not necessarily deteriorate; there is no proof that anything grown in gardens deteriorates, except where conditions of culture, of soil, of environment, or of improper methods of propagation are found. Things which have few varieties continue to exist sound indefinitely, although not increased by seed production. So far as the Potato is concerned, propagation by fleshy tuber is Nature's own method, and in the native habitats of the species it has answered for thousands of years. The immense crops we have show that it answers still. With how many bulbs has the method answered also? All speakers who referred to change of seed or soil admitted that the doing so had a rejuvenating effect on Potato stock; but no one could say why it was that the same variety grown twice or thrice in the same field or garden got weaker, or why it gained strength if grown on diverse soils and situations. Without doubt a Potato requires, to make it robust, and especially modern long-tried varieties, certain chemical constituents which any one soil either fails to furnish or is soon exhausted of. But in another soil those constituents are found, hence renewed vigour and robustness. Scotch soil and climate, as a rule, are highly favourable to Potatoes. Southern soils seem less so, as in those vigour is soon weakened. Stocks thus weakened sent north need two years to become as robust as before. It is a fact even southwards that stiff soils give Potatoes more endurance than light ones do. We grew many varieties on stiff land for twenty years, and found no deterioration. It was suggested that the common practice of lifting tubers in the autumn from the soil, and storing them in dried form during the winter, might have a weakening effect. One practical grower said that he had found late planting and leaving the tubers late in the soil gave better seed than resulted from early lifting. He had found that Ashleaf Kidney thus specially treated for seed tuber production gave the next year the best crops. It is an old axiom that self-planted Potatoes, if left in the ground all the winter unharmed, always give the strongest growth the following year. It may be that could the tubers of any variety specially selected for seed be kept in the ground all the winter safe from frost, and without making growth, they would remain always robust growers. Whether the common rule of planting yearly small tubers rather than

large ones may have, or not have, a weakening effect was considered, and, it was strongly advised, should be made the subject of practical experiment.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY. COLONIAL FRUIT SHOW.

THE Royal Horticultural Society held a second show of Colonial-grown fruit in their hall in Vincent Square on Thursday and Friday last. There was a most interesting display of Colonial produce, and there were some good exhibits of home-grown fruits also. We hear so much about the rich colouring and fresh appearance of imported Apples, that it is a relief and a pleasure to be able to say that the Colonial Apples shown last week, with few exceptions, were not to be compared, so far as attractive appearance is concerned, with the English ones. The exceptions were to be found in such as Jonathan, Fallawater, Ben Davis, and a few others from Nova Scotia, and Jonathan from South Africa. The Apples shown from South Africa lacked colouring, many were rather badly bruised, and the fruits of Ribston Pippin that we tasted were hardly worth eating. On the other hand, the Apples shown by Messrs. Bunyard, Cheal, Cannell, and a few others were firm, fresh fruits, and finely coloured. Mr. Divers, gardener to the Duke of Rutland, showed some very good Newtown Pippin Apples, of far better colour than those seen in the market. It would be interesting to have a note from Mr. Divers giving his experience of this variety, as some growers have failed with it. The Kelsey Plums from South Africa were splendid, and the Pears, too, were very good. A more detailed account of the many tropical fruits shown will be found below.

In the class for Yams, Sweet Potatoes, and other tubers, a gold medal was awarded to Messrs. James Philip and Co., 4, Fenchurch Buildings, E.C. This firm made a large display with both fruits and vegetables from the West Indies. Bananas, Jamaica Oranges, Coker-nuts, Cocoa Pods, Nutmegs, Grape Fruits, Limes, Papaw, Sweet Potatoes, Yams, White Eddoes, Tanyers, as well as such produce as Guava Cheese, Banana Flour, Guava Marmalade, Lime Juice Cordial, and many other interesting subjects.

The Royal Mail Packet Steam Company made a good display with West Indian produce, such as Shaddock, Bananas (including fruits of the Claret Banana, *Musa sapientum* var., from the Barbados), Papaw, Star Apples, Limes, Yams, and various pickles in bottles, such as Hot Sauce, Beans, Mountain Cabbage, and Stuffed Peppers. Silver-gilt Banksian medal.

There was an exhibit of Cotton from Rhodesia, and some splendid photographs of the Victoria Falls, Zambesi. They are 1 mile 169 yards wide, while the Niagara Falls are only half a mile wide.

A very fine collection of specimens of Wheat, Beans, Maize, Millet, Flax, Rubber, Cotton, Tobacco, Meslites, and other produce was exhibited by the British South Africa Company from Rhodesia. Gold medal.

Messrs. L. Rose and Co., 89, Worship Street, E.C., exhibited Rose's Lime Juice, made from the Lime fruit. Silver Knightian medal.

A silver Knightian medal was awarded to Messrs. W. Pink and Sons, Portsmouth, for an exhibit of Bananas, *Musa Cavendishii*, and *M. sapientum* grown in Barbados.

An exhibit of patent glass-stoppered bottles for bottling fruit was made by Messrs. C. Lunn and Co., Kirkcubright.

Sir George Watt, K.C.S.I., exhibited some very fine photographs of Indian tree scenery in the Botanic Gardens, Calcutta, Nilgiri Hills, the Himalayas, &c. Silver Banksian medal.

The Army and Navy Co-operative Society, Limited, Victoria Street, exhibited a collection of Colonial produce, which included Chocolate from Ceylon and Trinidad; Honey, Nutmegs, Sugar, and Ginger from the West Indies; Tea from India and Ceylon; Coffee from India and Jamaica; Indian Chutnee, Guavas, and Mangoes from the West Indies. Silver Knightian medal.

A silver Knightian medal was awarded to the Army and Navy Auxiliary Company, Francis Street, Westminster, for a display of Colonial-grown fruits. Included were Nectarines; Beurré Brown, Louise Bonne, and Beurré Bosc Pears (very fine); Kelsey Plums, Plums, Grapes Raisin Blanc and Red Haanefroot from Cape Colony; Apples Lemon Favourite, Cleopatra, Lady Dahlia, Wellington, Dunn's Seedling, and Ribston Pippin from South Australia; Bananas from the Barbados; Apples Ben Davis, Fallawater, and Nonpareil from Nova Scotia; Jamaica Oranges, &c. The Kelsey Plums were the finest we have seen. Some of them weighed 10oz., and were most richly coloured yellow and red. The Army and Navy Auxiliary also showed a group of flowering plants and cut Roses.

Some very fine Pears, Jonathan Apples, and Kelsey Plums were shown from the Meerhurst Fruit Farms, Paarl, Cape Colony. The Jonathan Apples were remarkable for their rich colour, and the Duchess Pears, too, were good. Silver-gilt Banksian medal. A silver Banksian medal was awarded to Mr. A. E. Baury, Rustenburg, South Africa, for splendid Louise Bonne Pears; to Mrs. Hawkins and Mr. W. Slark, Cape Town, for Barbarossa, Red Haanefroot, Raisin Blanc, and White Haanefroot Grapes. They were shown through their London representatives, Messrs. G. E. Hudson and Son, Suffolk House, Cannon Street.

The Rhodes Fruit Farm, Groot Drahesten, Cape Colony, contributed a collection of Pears, the varieties being Easter Beurré, Beurré Clairgeau, Forelle, Beurré

Hardy, Beurré Diel, Le Comte, Louise Bonne, Beurré Bosc, Keiffer, Winter Nells, and Duchesse d'Angoulême.

Cape Apples grown and shipped by the Cape Orchard Company, Limited, were shown by Messrs. G. E. Hudson and Sons. Ribston Pippin, Spy, Reinette d'Or, Tower of Glamis, Blenheim, Ballarat Seedling, and Reinette du Canada were among them.

A silver-gilt Banksian medal was awarded to the Fruit Exporters' Association, Cape Town, for an exhibit of Grapes, Apples, and Pears from South Africa.

A gold medal was gained by the Cape Orchard Company, Hex River, Cape Colony, for an exhibit of Apples and Pears. Some of the Pears were very fine, but the Apples lacked colour.

The Apples from the Rhodes Fruit Farm Company, Groot Drahesten, Cape Colony, gained a silver-gilt Knightian medal. A silver Banksian medal was given to Mr. A. Nicholson, Cape Colony, for a dish of Nectarines and for Pears. A bronze Banksian medal was given to Mr. Henry Meyer for Pear Gansell's Bergamot.

The Agent-General for the Cape was awarded a silver Banksian medal for bottled fruits.

The Agent-General for Nova Scotia showed a collection of Apples, as Baldwin, Fallawater, Northern Spy, Ben Davis, Mann, Seek, and Nonpareil, but some of them were not in the best condition. The home-grown fruits exhibited surpassed them in rich colouring and freshness.

Messrs. George Bunyard and Co., Maidstone, gained a silver Knightian medal for a collection of Apples. The fruits were preserved in a shed without any freezing or other artificial means. They were richly coloured and well preserved. One of the best dishes was Smart's Prince Arthur, a conical, highly coloured fruit, quite fresh and firm. Calville Rouge d'Hiver, Barnack Beauty, Newtown Wonder, and Striped Beeding were particularly good also.

Messrs. T. Rivers and Son, Sawbridgeworth, showed a collection of Oranges grown in their nurseries. The fruits were large and finely coloured. The varieties were Achilles, St. Michaels, Bittencourt, Brown's Orange, Dom Louise, Excelsior, Egg, and Silver or Plata. The Citron, White Lemon, Shaddock, and Imperial Lemon were also shown. There were pot fruit trees of the Grape Fruit, Bijou Lemon, and Myrtle-leaved Orange. Silver-gilt Knightian medal.

Messrs. Cannell and Sons, Swanley, Kent, were awarded a silver-gilt Banksian medal for a collection of Apples, remarkable for their good colouring and generally sound condition. Beauty of Kent, Annie Elizabeth, Norfolk Beaufin, Bismarck, and Baumann's Red Reinette were excellent.

A collection of "Apples in season" from Messrs. J. Cheal and Sons, Crawley, gained a silver Knightian medal. Crawley Reinette, Vicar of Beighton, Lane's Prince Albert, and Lord Derby were all very good.

The home-grown Oranges and Lemons from Miss Talbot, Magam Park, were very interesting. They obtained a silver-gilt Knightian medal.

A silver-gilt Knightian medal was awarded to the Duke of Rutland, Belvoir Castle (gardener, Mr. W. H. Divers), for a collection of Apples and Pears. They were in excellent condition, and most were well coloured. Cox's Orange Pippin seemed almost at its best. Blue Pearmain, Annie Elizabeth, Alfriston, Lane's Prince Albert, Gasconne's Scarlet, Tower of Glamis, Newton Wonder (richly coloured), and Barnack Beauty were all good dishes.

Mr. Robert Sydenham, Tenby Street, Birmingham, exhibited bulbs grown in moss fibre, and a collection of cut Narcissus in many beautiful varieties.

Messrs. G. Boyes and Co., Leicester, made a bright display with their Tree Carnations in many good sorts. The best of the new ones was the Hon. Alfred Lyttelton, bright reddish salmon.

Messrs. Champion and Co., 115, City Road, E.C., showed their handsome tubs for shrubs.

The Four Oaks Garden Sundries Company, Four Oaks, Sutton Coldfield, exhibited garden sundries, and Mr. Williams, Oxford Road, Ealing, showed table decorations.

NARCISSUS COMMITTEE.

The opening meeting of the Narcissus season on the 28th ult. was characterised by some important novelties, and probably a second view, so to speak, will be helpful to some at least of your readers. A large group came from Messrs. Barr.

Ariadne (Leedsii) is probably an improved Minnie Hume with larger and more spreading cup, prettily and elegantly frilled. This gained the award of merit.

Apricot we have never seen so full of tone in the trumpet as now, and we may look upon it as a forerunner of something good in the future.

Peter Barr is becoming better known each year. It is a big flower, and, as a white Ajax kind, will require some beating.

Duke of Bedford is a fine bicolor.

Alice Knight is a pleasing white Ajax, and

Constance a very charming Leedsii kind.

Bridal Veil is a drooping white-flowered sort with more cylindrical crown, while in the fine *Incomparabilis* Brilliant a rich colouring of the long crown is quite a feature. White Queen, the exquisite and dainty Maggie May, the richly toned Lucifer, and the bold, imposing yellow Ajax King Alfred impressed me by their great beauty.

King Alfred came freely from its raiser, Mr. Kendall, Newton Popholeford, and one can admire this handsome type again and again.

Mr. Robert Sydenham had many good things, not a few assisting to demonstrate the value of the prepared cocoon fibre material for growing these things.

Sir J. Gore-Booth, Bart., a new exhibitor, we believe, brought from Sligo many choice sorts, Seagull and Albatross, for example, with C. J. Backhouse, and others. We could but admire in this group the great size of *Stella superba*, while Minnie Hume was distinctly pretty.

Mr. Charles Dawson, Rosemoran, Penzance, had a gathering of the choicest that gave us unbounded pleasure, not only because of their beauty, but in an arrangement that ignored completely the dozen-in-a-bunch idea. In place of this the smaller numbers of flowers with ample room were seen to advantage. We take the following as among the best in this fine lot:

Homespun, a refined Sir Watkin, of deeper yellow tone in the roundly ovate perianth segments. A shapely and beautiful flower.

Horace we regard as the highest perfection to which the poetic race has yet attained.

Pilgrim we accept as a large Leedsii, with fine lemon-toned cup of good size.

Firebrand, with its intensely coloured cylindrical cup so heavily toned to the base, catches the eye at once. We know of no variety so well or so deeply coloured as this one.

Phantom is a big bicolor, more drooping than grandis, but suggestive somewhat of this good kind. It is a very handsome flower.

Red Eagle, with 1 inch wide crown of crimson flame colour, was much admired, and was seen to perfection with *Mermaid* of the White Queen type quite near.

Sea King we think highly of. It gives one the impression of a big white Johnstone kind, not entirely, but comparatively.

Armored, with large involute perianth segments, is quite an attraction, and we admire its flat, somewhat goffered crown. These are some of the better sorts seen on the 29th ult., and briefly mentioned in our last issue.

FLORAL COMMITTEE.

The following notes were unavoidably left out last week.

Mr. E. A. Hambro, Hayes, Kent, gardener to Mr. Grandfield, contributed a very beautiful lot of alpine in and out of flower. Among the more rare we noted *Saxifraga arctioides*, *S. valdensis*, and *S. Bydii*, while the more common kinds were in abundance and well grown. *S. sancta*, *S. Grisebachii*, and the Cabinet Houseleeks were of this number. Silver Flora medal.

Mr. H. B. May, Edmonton, filled a long table with *Gardenia florida* in pots, Clematises in variety, and *Roses* White Pet and Crimson Rambler. *Rose* Mme. N. Levassieur is also a bright-coloured variety of the *Polyantha* class, flowering with great freedom.

A group of *Clivias* were from Messrs. J. Laing and Sons, Forest Hill, and a large group of forced shrubs from Mr. L. R. Russell, Richmond. *Azaleas*, *Lilacs*, *Clematises*, *Viburnums*, and other choice things made a most imposing display. The white *Azalea Daviesii* is very charming. Silver Banksian medal.

A small group of alpine from the Guildford Hardy Plant Nursery included *Sanguinaria canadensis*, *Fritillaria aurea*, *Cheiranthus Harpur Crewe*, *Primulas*, *Troilus latus*, *Anemones*, and the like. *Saxifraga apiculata* was a very fine mass of primrose yellow blossom.

Flowering shrubs from Messrs. B. S. Williams, Holloway, were very fine in the mass. *Lilacs*, *Prunuses*, *Azalea mollis*, *Deutzias*, and others, in all the freshness of a bright spring morning, were here to perfection, and greatly admired. Standards and dwarfs of the *Prunuses* assisted much in varying the arrangement. Silver-gilt Banksian medal.

Messrs. Cutbush and Sons, Highgate, had a rich and varied lot of forced shrubs, obtaining a fine result with standard *Currants*, *Laburnums*, *Lilacs*, *Cytisus*, and the like, while *Azalea mollis*, A. *Daviesii*, dwarf *Lilacs*, and richly-coloured *Azaleas* and *Magnolias* completed a very fine arrangement of these useful plants.

Alpine and allied things were in much variety from Messrs. J. Peed and Son, West Norwood, *Sedums* and *Sempervivums* being largely shown. A small group of *Cacti* was also staged.

A small group of alpine from Mr. H. C. Pulham, Elsenham, contained *Anemone Pulsatilla* and A. P. alba, both very fine. *Adonis amurensis plena* and *Polygala Chamæbuxus purpurea* was also noted, a pretty mass being in full flower.

Another group of alpine was that from Messrs. J. Cheal and Sons, Crawley. Here were seen *Primroses* (single and double), *Anemones*, hardy *Heaths*, alpine *Primulas*, and other things. *Daphne Mezereum* was very good.

HORTICULTURAL CLUB.

LECTURE ON "FORESTS, WILD AND CULTIVATED."

On Tuesday, the 28th ult., the monthly dinner of this club was held under the presidency of Mr. Harry J. Veitch, on which occasion Dr. Henry and Sir Herbert Maxwell, Bart., were guests. Many members and friends were present. Dr. Henry gave a most interesting lecture on "Forests, Wild and Cultivated," illustrated by a large number of lantern slides. The main purpose of the lecture was the advocacy of the utilisation of many large areas of waste land in Great Britain, and especially in Ireland and Scotland, as forest land. The illustrations started with a map of the world, showing the presumed areas originally covered with primeval forests, now to a very large extent denuded. This map showed clearly that the growth of timber depended essentially upon the extent of the rainfall, and not upon temperature or special richness of soil. The temperature question was determined by the existence of forests well into the arctic zone; while, as regards soil, a number of the slides, all photographic, demonstrated that fine timber trees could thrive and flourish in soil which was practically nothing but stones and rocky rubble, and in other instances, dense forests were shown to have existed at one time on deep peat beds, in which their remains were found to this day. This pointed the lecturer's moral as regarded Ireland, especially where he maintained that forest cultivation, on the lines

indicated by Continental experiments and results, was entirely practicable and capable of transforming waste land, inhabited now sparsely and by an impoverished population, into thriving industrial areas. In this connexion he instanced an area of over 1,000,000 acres in France which exactly illustrated this possibility, since, thirty or forty years ago, the whole district was bare and supported but a few peasants and shepherds, while at the present moment it is clothed with profitable timber, which in the way of timber and by-products supported a number of thriving towns. By a series of slides, taken in one of the same forests at different spots, Dr. Henry clearly demonstrated how this was done, and by other slides taken in this country he also showed how it should not be done. The secret appears to lie in dense growth. One slide, for instance, showed an Oak forest in which the trunks were so close together as hardly to admit of passage between. The trees consequently formed tall pole-like trunks, perfectly straight and devoid of lateral branches. This means sound timber devoid of knots as was shown by separate slides, and two trees grown on near and far-apart systems, and sections of planks derived from same, the latter of which were full of knots and the former without a trace, the later branches being early suppressed by the induced shade. One Oak was shown with a straight trunk of 90 feet below a broom-like top, utterly belying the ordinary idea of an Oak tree, and repugnant, perhaps, to the artistic sense, but commercially precisely what was needed. Other views showed the processes of thinning out the timber when fit for sale, and of subsequent regeneration which was practically left to Nature, by means of self-sown seedlings, which sprang up when light was admitted by partial clearance. Trees were divided by the lecturer into two classes, shade-bearing trees and non-shade bearing, i.e., trees which spontaneously killed off their lower branches as they developed, because their foliage could not stand the induced shade of the upper growth, and trees which formed dense masses to the ground for the opposite reason. Another point, finely illustrated by slides, upset the idea that the native habitats of trees and other plants were necessarily such as best fitted them for full development. Specimens of exotic trees grown in the British Isles were shown, which were the largest known specimens in the world, while the same species were shown in their native habitats as relatively small specimens. In the discussion which followed the lecture, Sir Herbert Maxwell raised the vexed question of the rabbit, as, perhaps, the greatest hindrance to reforestation, owing to its attacks upon seedling trees, and it was elicited that in the Continental examples rabbits were relatively scarce. Mr. Alfred Pearson also challenged the profitable nature of forestry in this country, and instanced cases where timber was unsaleable. The opinion, however, was expressed by Sir H. Maxwell that this question ranked with that of the small producer of vegetables or fruits, and would be answered satisfactorily if timber-raising were elevated to a really practical industry on a large scale as on the Continent.

A very hearty vote of thanks was accorded to Dr. Henry, whose observations were obviously of such great practical and economical value that it is to be hoped they may appear *in extenso* in the Journal of the Royal Horticultural Society.

TORQUAY SPRING SHOW.

A VERY bright show was held at the Bath Saloons, Torquay, on the 30th ult., under the management of the Gardeners' District Association.

PRIZE LIST.

Six flowering plants: First, Miss Congreve. Six foliage plants: First, Miss Congreve; second, Dr. Quick. Three flowering plants: First, Miss Congreve; second, Mrs. Trevor Barkly. Six Ferns: First, Miss Lavers; second, Miss Congreve. Specimen *Azaleas*: First, Miss Congreve. Three *Azaleas*: First, Colonel Cary. Group of miscellaneous plants: First, Miss Lavers. Group of Orchids, 10 feet by 3 feet: First, Mrs. Trevor Barkly. Three Orchids: First, Miss Lavers; second, Mrs. Trevor Barkly. Three *Deutzias*: First, Dr. Quick; second, Colonel Cary. Six table plants, flowering: First, Mrs. Trevor Barkly; second, Mrs. Whitley. Six table plants, foliage: First, Dr. Quick; second, Captain Tottenham; third, Mrs. Trevor Barkly. Six *Amaryllis*: First, Mrs. Trevor Barkly; second, Miss Lavers. Twelve *Hyacinths*: First, Mr. Fenton Wingate; second, Miss Lavers. Six pots of *Narcissi*: First, Mrs. Trevor Barkly; second, Mrs. Pitt. Six pots of *Polyanthus Narcissus*: First, Mr. S. B. Cogan. Six pots of *Kreasia*: First, Mr. Fenton Wingate. Three pots of *Lilies of the Valley*: First, Miss Lavers. Six pots of *Tulips*: First, Mrs. Pitt; second, Mr. Wingate; third, Miss Congreve.

Several nurserymen added much to the display. Amongst these were the Devon Rosery, Torquay, which exhibited pot *Roses* in flower, hundreds of cut *Roses*, *Niphetos* being especially fine, *Cinerarias*, *Deutzias*, *Cytisus racemosus*, *Lilium longiflorum*, a bank of *Anthuriums*, *Cypripedium*, *Lilacs*, *Ericas*, *Lilies of the Valley*, and other flowers, while from their fruit farm came *Strawberries*, *Apples*, and other fruits and vegetables. Messrs. Barr and Sons showed a large collection of *Narcissi*, including King Alfred, Peter Barr, Bridesmaid, Mary Anderson, Dandy Dick, Weardale Perfection, Catherine Spurrell, Dr. Fell, Concord, Beauty, Gloria Mundi, Constellation, Vesuvius, Constance, C. J. Backhouse, White Queen, White Lady, Salmonetta, Apricot, Cassandra, Strougbow, Vivid, Loveliness, Peach, Bridal Veil, and Ariadne. Messrs. Robert Veitch and Son, Exeter, staged a selection of rock plants, comprising *Primula nivalis*, *Saxifraga Griesbachii*, *Corydalis thalictroides*, and *Androsaces*, as well as *Cydodias*, *Forsythia suspensa*, *Dimorphanthea Ecklonis*, *Rehmannia angulata*, *Kalanchoe flammea*, *Jasminum primulinum*,

Lachenalias, *Sarracenias*, *Oranges* in fruit, the new *Erica Veitchii* and *Cheiranthus kewensis*, and many varieties of *Magnolia* in flower. Messrs. W. B. Smale and Son, Torquay, showed *Acalypha Sanderi*, *Clivias*, *Anthuriums*, new hybrid *Azaleas*, *Cactus Pelargoniums*, *Acacias*, *Cyclamens*, and other plants. Mr. J. Heath, Kingkerswell, exhibited a fine collection of *Violets*, amongst which were Kaiser Wilhelm, La France, Mrs. J. J. Astor, Lady Hume Campbell, Comte de Brazza, Perle Rose, and Princesse de Surmonte.

CROYDON HORTICULTURAL SOCIETY.

THE second of the first prize essays won last year in open competition amongst the members of this society was read by the winner, Mr. J. Sugden, Morland Road, and the paper proved entertaining to a good muster of members at their rooms on Tuesday last. The subject was "Birds of our Garden," and the essayist spoke in meritorious terms of most of the species found amongst us. He, however, also mentioned the depredations of some on the young seedlings and buds, and advised protection with black cotton or other means from these molestations. He said it must be admitted that the birds are of great benefit to the gardener, and entreated all to make close observation of these feathered friends, when it will be found they prove a decided benefit to mankind. With the help of the lantern he was able to show a number of slides on the screen, illustrating the natural colours of the birds. The discussion following was in a mixed feeling to the essayist's views, some members eulogising the good points in the majority of species, whilst others were condemned as altogether destructive. The exhibits were good, and comprised a well-flowered *Colognye cristata* from Mr. A. Edwards, *Tulips* in pots from Mr. B. Acoc, Parsley and Kale from Mr. W. A. Cooke, and pod of *Cotton Plant*, *Cottouseed*, and raw *Cotton* from Mr. F. W. Moore. A unanimous vote of thanks was conveyed to Mr. Sugden for reading his essay, also to the exhibitors. The fifth annual spring flower show will be held at the Art Galleries, Park Lane, Croydon, on Wednesday, the 19th inst.

BRITISH GARDENERS' ASSOCIATION.

WEST HARTLEPOOL.—At a meeting held recently at West Hartlepool it was unanimously resolved to form a local branch of the association, and a committee was elected to carry this resolution into effect, Mr. T. Smith, Grantly Gardens, West Hartlepool, being appointed local secretary.

Beckenham.—A meeting of gardeners, called by Mr. Mark Webster, was held in this town on the 10th ult., Councillor J. Neville in the chair, and was addressed by Mr. W. Watson. It was decided to form a committee and establish a branch of the British Gardeners' Association in the district.

BOURNEMOUTH AND DISTRICT GARDENERS' ASSOCIATION.

AT the meeting held on the 21st ult. at the Avenue Restaurant, when Mr. J. B. Stevenson occupied the chair, Mr. Dumper of Hinton Admiral Gardens, Christchurch, read a paper on "Some Injurious Insects," giving much valuable information as to their haunts and peculiarities, also hints as to their extermination. The paper was much appreciated, and Mr. Dumper was accorded a hearty vote of thanks. Two honorary members were elected.

* * * The Yearly Subscription to THE GARDEN is: *Inland*, 6s. 6d.; *Foreign*, 8s. 9d.

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ALPINE AND ROCK PLANTS, HERBACEOUS PLANTS & SHRUBS

The Planting of Rock and Alpine Gardens a speciality.

CATALOGUES ON APPLICATION.

H. C. PULHAM, Hardy Plant Nursery,
ELSENHAM, ESSEX.

THE GARDEN

No. 1743.—VOL. LXVII.

APRIL 15, 1905.

DISEASED MUSHROOMS.

COMPLAINTS have been frequent this spring of the loss suffered by Mushroom growers through the crops being damaged by an injurious fungus permeating the beds and attacking the Mushrooms. This complaint is as old as the practice of the growth of Mushrooms under artificial conditions, but no one, so far as we know, has been able to say definitely what is really the cause of the disease. We have no knowledge of its attacking the Mushroom when grown naturally in our fields and meadows; therefore we are forced to the conclusion that the disease is due to some defect in one or more of the materials which are used to form the spawn or Mushroom beds, or in the conditions under which they are grown. Generally we may say that growers are inclined to blame the spawn as being impure. This, we think, implies an unjust reflection on manufacturers. No man knowingly would be so blind to his own interests as to introduce an obnoxious element into the spawn. The fact remains, all the same, that our beds are frequently impregnated by this deleterious mycelium and spoilt. The question naturally arises, How does it get there? We think its presence may be accounted for in one or two ways. In the first place, it may have been present in the manure which is used in the first instance to form the brick spawn. We know that in manure of this kind there is often the form of more than one fungus, which lies dormant only until the conditions favourable to its growth are provided, and this is when the bricks, after the introduction of the proper spawn takes place, are subjected to a mild heat to induce the mycelium to run through and permeate the brick. The false mycelium, if present, does the same, sharing the possession afterwards of the brick with the genuine spawn. Considered in this sense, of course the spawn would be at fault, although unknown to the maker.

The other way we suggest in which it may be accounted for is through some quality or condition of the manure which forms the bed being favourable to this false variety. The opinion is held by many that the manure from stables in which horses are frequently physicked is accountable; others say that the

manure, being too wet or too rotten when the bed is made up, is at fault, forming conditions favourable to its growth. The subject is important as bearing on the successful culture of Mushrooms, and we hope to gain information which may help our readers to get at the bottom of the trouble, and so find a remedy or preventive.

We have been asked by a correspondent whose crop of Mushrooms has been seriously affected by this disease to bring the matter before readers of *THE GARDEN* in order that further light may be thrown on the subject.

RIVIERA NOTES.

AFTER five years' struggle with *Tulipa saxatilis* I have at length succeeded in finding out its requirements, and this year it is in great beauty. Its Peach blossom colouring is unique, and its golden eye and grass green foliage are most unusual. Hitherto, in common I fancy with most of those who have grown it, I have found it apt to dwindle to small offsets, which in their turn grow still smaller, till they die out. The secret, here at any rate, is planting it in rich red ferruginous earth such as is found in cavities in the limestone rocks and exposing it fully to the summer heat and drought, for those planted two years ago on a rockwork made for Aloes and succulents have this year shown plainly they are at home.

TULIPA GREIGI, which is also rather a difficult bulb to keep in vigour year after year, prefers a moister and cooler soil and situation, and has done best as an edging to a Rose bed that is well manured, but which is not watered during the summer heats, for this bulb also demands a long, dry rest. Both evidently like limestone soil.

TULIPA CLUSIANA AND *T. PRÆCOX*, both natives of the country, grow and multiply like weeds, and afford me much pleasure, but it is *T. clusiana* that is the more prolific of the two. The tiniest bulbs will give a flower, and the biggest give sometimes three of their dainty flowers, whose brilliant rose flush on the white petal has earned for them the doubtful epithet of Painted Ladies!

TULIPA KAUFMANNIANA as yet remains in the "misunderstood class." So far, no blandishments of mine have succeeded, and I begin to think it is a Tulip that likes a colder climate, as I see its petals frequently reflex in the sun, and the long flower-stem bends over till it looks like a huge Cyclamen. If I hear it succeeds well in the north of England, I shall try it in the moistest and coolest corner I possess. The adaptability of bulbs and plants is so wonderful that perhaps the difference between sun and shade may be

what it really needs, for hitherto I have thought the full sunshine desirable for all Tulips. That very vigorous

ROSE NOELLA NABONNAND is one of the few Roses that enjoyed the heat and drought of last year. It is already in flower, and finer than usual, while the favourite Fortune's Yellow refused to stir till the welcome rains of ten days ago put a little sap into the slender shoots. For a hot and dry south wall I should think no Rose more suitable than *Noella Nabonnand*, and I shall not be surprised to hear it proves too vigorous a grower in England. So early a Rose is, however, always worth a trial, and with a little pruning it gives a fair autumnal bloom. The three forms of

FORSYTHIA Fortunei, *suspensa*, and *intermedia*, which have been in fine flower, deserve a few words, for I think they are often taken the one for the other. *F. Fortunei* is perhaps the best of them all, with its strong, tall, upright shoots and numerous flowers clustering at each node. *F. suspensa* is much more slender in growth, and has a more decided patch of orange at the base of the flower. Its merit here is that it flowers quite ten days earlier, and though there are only two flowers at each joint, the number of slender, drooping shoots hung with yellow bells is most elegant, and when in full flower is much admired. *F. intermedia* tells its own tale at once. It is exactly between these two, and is, in consequence, not so distinct or desirable in my opinion; but where *F. suspensa* does not flower freely *F. intermedia* may try to fill its place.

CHEIRANTHUS KEWENSIS has been a disappointment to me. The growth is sturdy and the flower very fragrant, but the colour is the dingiest possible tone of muddy brown. If some kind friend would hybridise the charming *Cheiranthus mutabilis* with a rich purple shade of Wallflower, we might then have a first-rate perennial bush. As it is I find nobody will give it a good word when I point it out to them.

CORONILLA CORONATA is a very distinct and hardy form of the old and excellent *Coronilla glauca*. Its growth is upright and sturdy, its foliage bright green and abundant, so that a big bush of some years standing is a very handsome thing. The flower is identical with, but a little larger than, the type, and as it is much hardier as well as more vigorous, it is a plant well worth growing when it can be obtained, and should withstand an ordinary winter without protection.

EXOCHORDA ALBERTI MACRANTHA has again proved itself very free flowering, even in a strong calcareous soil, where the typical *Exochorda* refuses to exist, so those whose lot is laid in the limestone should make a mark in its favour.

Nice.

EDWARD H. WOODALL.

RECENT PLANT PORTRAITS.

THE *Botanical Magazine* for April contains portraits of

Catasetum christyanum.—Native of Amazon district. This is a vigorous-growing species, with dull-coloured flowers of little beauty and only botanical interest.

Derris alborubra.—Native of China. This is a pretty evergreen climber from Hong Kong, requiring the temperature of a stove, and producing long, pendulous, open-branched racemes of small, pure white flowers, with deep rose-coloured calyces, forming a fine contrast.

Burbridgea schizoclella.—Native of Malaya. This is a rather bright and ornamental-flowered member of the Gingerwort family, with spikes of orange flowers. The correctness of its nomenclature is as yet uncertain. In habit of growth it resembles an *Hedychium*.

Cotoneaster rotundifolia.—Native of North India. This is perhaps the largest, brightest-fruited, and handsomest member of its interesting family. Its fruits are of very large size and of a bright shade of rose colour, and retained their beauty in the open air at Kew through the severe frosts and destructive fogs of last winter up to the middle of the month of February.

Pinanga maculata.—Native of the Philippine Islands. This is a slender and graceful-growing Palm, with mottled foliage and pendulous racemes of small red fruit. W. E. GUMBLETON.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

April 18.—Midland Daffodil Society's Show, Birmingham (2 days); Sevenoaks Gardeners' Society's Meeting.

April 19.—Royal Botanic Society's Exhibition.

April 25.—Royal Horticultural Society's Meeting; Chesterfield Show.

May 9.—Royal Horticultural Society's Meeting.

May 11.—Royal Gardeners' Orphan Fund Dinner.

May 17.—Royal Botanic Society's Exhibition.

The late Mr. William Paul.—Many friends gathered round the graveside of the late Mr. William Paul on Tuesday, the 4th inst. It should have been mentioned in our review of the late rosarian's life that he was in the original list of the Victoria Medallists of Honour.

The Edinburgh International Show.—In consequence of the large number of applications made to the Royal Caledonian Horticultural Society for space at the International Horticultural Exhibition in September, it has been found necessary to apply to the Town Council for the use of the roof of the Waverley Market, where the show is to be held. It is proposed to erect a temporary stairway from the market to the roof. The application was considered at a joint meeting of the Parks' and Treasurers' committees on the 30th ult., and it was ultimately agreed to recommend the Council to grant the use of the roof, only one member dissenting. It is proposed to exhibit shrubs and flowers on the roof.

Hardy Heaths at Kew.—The Heath garden at Kew presented a very gay appearance on the last day of March, a month which had been singularly free from frosts and cutting winds. Taking first the larger growers, the little rounded wax-like blossoms of the Tree Heath (*Erica arborea*) were nearly over, while the Portuguese Heaths (*E. lusitanica* or *codonodes*) were past their best. Between these two there is often much confusion, but the last-named does not attain the dimensions of *E. arborea*, while the individual flowers are somewhat longer. A hybrid between the two, which, under the name of *E. Veitchii*, was lately given an award

of merit by the Royal Horticultural Society, is also well represented at Kew, and a beautiful Heath it is. Another of the larger kinds also in flower was *E. australis*, a native of Spain and Portugal, but it is not generally grown in this country. The flowers of this are of a bright rosy tint, and being borne (as happens with most Heaths) in the greatest profusion it is very beautiful when at its best. The different forms of *E. mediterranea* all in full bloom on the day stated served to show how charming it is, and on the score of hardiness it is superior to any of those named above. The typical *E. mediterranea* (the largest grower) has bright rosy red blossoms, and beside this there are also alba, in which the flowers are white; glauca, with bluish foliage; and nana, a comparatively dwarf kind. That delightful Heath known as *E. mediterranea hybrida*, which has gained many admirers of late years, and a short time since received an award of merit from the Royal Horticultural Society, is strongly represented at Kew, and despite the fact that it had been flowering for so long it was still at the end of March very beautiful. *E. carnea* and its white variety were, unless in very shady spots, almost over. Concerning this charming little winter Heath it may be noted that some individuals are much richer in colour than others, a fact that is not generally recognised.—T.

Chionodoxa nana.—Although not vieing with the other *Chionodoxas* in brilliancy of effect, the little *Chionodoxa nana* is one which many will prize for its neat and quiet beauty, while its rarity will commend it to those who consider this a quality in a flower. It is much smaller than any of the others, and its pretty little blue-coloured flowers are produced later than those of most of the genus. In height it is also a little dwarfier. This *Chionodoxa* is a native of Crete, and, although introduced for a considerable number of years, still remains rare in gardens. I had it originally from Mr. James Allen, but I believe that it has only been imported once or twice from its native habitats. Like most of the *Chionodoxas* here it increases but slowly by offsets, and so far I have not found seedlings in the neighbourhood of my little group of plants.—S. ARNOTT, *Dumfries*.

Experiments in Potato culture. The report of an experiment on the manuring of Potatoes at the County Council Farm, Hutton, and of the planting of Potatoes at different distances apart, by Mr. John Bayne, M.A., B.Sc., Principal of Agriculture, and Mr. Edward Porter, B.Sc., Lecturer in Agriculture for the Lancaster County Council, has been published in pamphlet form. The conclusions arrived at were: Without farmyard manure—The following dressing of artificials per statute acre can be recommended as a manure for Potatoes on good land: Sulphate of ammonia, $\frac{1}{2}$ cwt.; nitrate of soda, $1\frac{1}{2}$ cwt.; superphosphate, $3\frac{1}{2}$ cwt.; muriate or sulphate of potash, $1\frac{1}{2}$ cwt. On medium land the above quantities may all be increased up to 50 per cent. With farmyard manure—Farmyard manure, 10 tons; sulphate of ammonia, 1 cwt.; superphosphate, $3\frac{1}{2}$ cwt.; sulphate of potash, $1\frac{1}{2}$ cwt. The quantities may be increased if the land is somewhat low in condition, and instead of sulphate of potash the same weight of muriate of potash may be used. The experiment as to planting shows that, in the case of a large free-growing late variety of Potato like Scottish Triumph, the best distance apart for planting the seed is between 18 inches and 2 feet.

Myrobolan hedges.—For many years past the gardeners of England have been using the Myrobolan Plum as a hedge plant, and from the reports of it from time to time which appear in their papers, it makes a most satisfactory hedge. The nurserymen there advertise it as a defensive hedge plant, and this claim is no doubt correct from the way it grows here. This subject is referred to now to call attention to the possi-

bility of this Plum being used in this country in a similar way to advantage. From the habit of its growth, by proper pruning it could, certainly, be made into such a thicket as would deter an ordinary animal from breaking through it. There are not many hedges of a defensive character used nowadays. Wire has taken their places, and where it has not the Osage Orange and Honey Locust are not always desirable, their tree-like habits calling for such heavy pruning. The Myrobolan Plum is but of Plum tree height, so that when used in hedge shape it is easily kept under control. To those looking for a hedge of a different character from what we now have, the Plum in question is recommended for trial. It is a shrub which can usually be had at small cost, and in quantities, both from home-raised and imported plants. This is the Plum which is the most esteemed of all kinds for stocks by our nurserymen. Some years ago the Mirobelle was used to some extent, but it proved such a terrible fellow in the way of suckering that it has been totally discarded. The Marianna is valued by many, but more of the Myrobolan is used than of any other, and now were it to come into demand for hedging it would be still further valued.—JOSEPH MEEHAN, in *New York Florists' Exchange*.

Horticultural lectures at Aberdeen.—The series of lectures on horticultural subjects delivered to the gardeners of the city and suburbs by Mr. Hendrick, of the Aberdeen and North of Scotland Agricultural College, was brought to a close on the 28th ult. The lectures have been of a valuable character, and have been much appreciated by those who attended them. Mr. Hendrick succeeded in making them lucid, attractive, and thoroughly practical.

SONGS OF THE WOODS AND FLOWERS: DAFFODILS.

I QUESTION with the amber Daffodils,
Sheeting the floors of April, how she fares;
Where King-cup buds gleam out between the rills,
And Celandine in wide gold-beadlets glares.
By pastured brows and swelling hedgerow bowers,
From crumpled leaves the Primrose-bunches slip,
My hot face roll'd in their fair-scented flowers,
I dream her cheek rests against my lip.
All weird sensations of the fervent prime
Are like great harmonies, whose touch can move
The glow of gracious impulse: thought, and time
Renew my love with life, my life with love.
When this old world new-born puts glories on,
I cannot think she never will be won.

LORD DE TABLEY, in *Flora and Sylva* (April).

"Effects of the Weather upon Vegetation."—Mr. John Clayton has published in booklet form a lecture on the above subject, delivered to the Bradford Naturalists' Society on March 1, 1897. Among other things Mr. Clayton observes: "Different plants are affected by frost in varying degrees. As a rule those that contain most water are the most readily affected. But it may be assumed that the constituents of the sap of some plants are different to the constituents of the sap of others, therefore one sap would need a lower temperature to freeze it than another; and the plant whose sap needs the lower temperature would accordingly resist frost more successfully. By experiment it has been proved that sap expressed from a Beech tree required a lower temperature to convert it into ice than was required to convert an equal quantity of water. Both sap and water expanded about one-twelfth their volumes on becoming ice. Such an expansion in a pipe that is already full must necessarily burst it, but in vegetation the vessels are never full of sap, for they contain, besides, a quantity of either air or a more rarefied gas, therefore the expansion which takes place when sap freezes is easily allowed for by a slight compression on the particles of air."

Rhododendron fulgens.—The almost entire absence of frost during March has been this season greatly in favour of the early-flowering Rhododendrons, of which *R. fulgens* is one; indeed, about the middle of the month a large bush of it in the Rhododendron dell at Kew formed a most brilliant picture, being thickly studded with clusters of rich blood-red flowers. Later on the comparatively large crimson bracts which subtend the young shoots, will be scarcely less showy than the blossoms. The flower trusses of this species are close and rounded, very different from the loose clusters of some of the Himalayan kinds. The ovate leaves are about 4 inches long, and clothed with a reddish felt-like substance on the undersides. The true *Rhododendron fulgens* is, indeed, a charming shrub, but it cannot be always obtained from nurseries, for instances have come under my notice in which the variable *R. campanulatum*, whose flowers are purplish, have been sent for it. In a small state at least the two so nearly resemble each other that it is almost impossible to state positively the correctness or otherwise of the name. In the case of a large specimen, however, *R. campanulatum* is, as a rule, less gaunt in outline than *R. fulgens*. Despite its comparative hardness and the beauty of its flowers, this last-named species has not, as far as I know, been used by the hybridist in the production of new varieties.—H. P.

Farms in West Australia.—Recognising the necessity on the part of settlers, particularly young men, of gaining Colonial experience, and of acquiring the technical knowledge needed to ensure success in an agricultural career, the authorities in Western Australia have established two experimental farms, one of about 1,000 acres, and another of about 2,000 acres. Both are in the south-west division, but they represent, to some extent, different classes of soil. Entrance to these farms is open to youths of sixteen years of age and over on most generous terms. For a fee of £2 2s. per annum, payable quarterly, students are maintained and taught for two years. Any young fellows going from the home country to these farms might get a thorough practical knowledge of farm work, and, at the end of the period, would be able to take up land for themselves. Should any of our readers like to have further information, it can, no doubt, be obtained from the Agent-General for Western Australia, 15, Victoria Street, London, S.W.

Agricultural Education and Forestry Exhibition, 1905.—The Royal Agricultural Society announce that an Agricultural Education and Forestry Exhibition will again be held in connexion with the society's show to be held at Park Royal from June 27 to 30 next. The forestry department will be organised on the same general lines as last year, and offers of exhibits are invited for the following sections: 1. Seeds and cones of trees and shrubs. 2. Seedling trees and transplants, consisting of specimens and plants suitable for woods, plantations, coverts, shrubberies, &c.; plants suitable for agricultural hedgerows, with illustrations of planting, and collections of Willow plants for industrial purposes (cricket bats, basket making, &c.). 3. Woods and plantations, chiefly photographs and diagrams, showing systems of treatment as to mixing, thinning, &c.; photographs of historic or specimen trees. 4. Timbers, planks, and hand specimens of home-grown woods of various species; specimens of timber, &c., showing the effects of pruning, injuries, &c.; specimens of timber showing the effects of creosoting and of other methods of preservation; articles in process of manufacture from home-grown timber. 5. Insects and diseases, specimens of forest insects and of fungi and their ravages; characteristic examples of the attacks of game, birds, squirrels, voles, &c. 6. Plans, maps, models, &c., illustrating working plans, forest exploitation, manipulation of timber, &c. 7. Forest and

nursery tools, instruments, and appliances. Any offers of exhibits or enquiries should be addressed to the secretary of the society at 13, Hanover Square, London, W.

Potato prices.—After the *furor* of prices for new Potatoes which prevailed last year it is instructive to note that now seed-tubers can be purchased at what must be described as abnormally low prices. By wholesale lists which come to me I find that many leading varieties can be had for prices per "ton" such as were proclaimed as having been paid for pounds only last year. Were planting to be this year in proportion to the existing cheapness of seed-tubers there should be an immense breadth planted presently, but because of the great abundance and cheapness of Potatoes the result may be that a much lesser area will be planted now, and thus prices may be raised in the autumn. The fact that we have such an abundance of tubers potently shows that talk of the deterioration of the Potato has no basis, as also that the disease or other ills affect the Potato crop harmfully only in the smallest degree. It was most widely anticipated last autumn that there would have been this spring an exceptional demand, but so far it has not been realised.—A. D.

The best garden Dahlias.—In the 1905 supplement to the official catalogue and culture guide of the National Dahlia Society this revised selection of twelve varieties, which make an especially effective display in the garden on account of their good habit and stiff flower-stems, is given: Amos Perry, crimson; Aunt Chloe, deep purplish black; Britannia, salmon-pink, shaded apricot; Countess of Lonsdale, salmon, tinted carmine; Effective, amber, with rose centre; Eva, pure white; Floradora, wine crimson; Mary Service, pinkish heliotrope; Mrs. H. L. Brousson, yellow, shaded salmon; Prince of Yellows, rich yellow; Spitfire, bright scarlet; and Spotless Queen, pure white. This supplement gives several other very useful lists. The honorary secretary of the National Dahlia Society is Mr. H. L. Brousson, Boyton, Foot's Cray, Kent.

A beautiful Daphne (D. blagayana).—In the rock garden at Kew a large plant of this *Daphne* is in full flower, and very pretty it is, with almost every shoot terminated by creamy white blooms. When first expanded the yellowish tinge is more pronounced than is the case after they have been opened a few days, as at that time they become almost white. This *Daphne* is said to have been first discovered in Carniola as long ago as 1837, but twenty years ago it was an almost unknown plant. It naturally forms a low-growing, spreading bush, and is just at home when treated as a rockwork shrub. From its almost procumbent manner of growth it can be readily propagated by layers, though they take some time to root. Few subjects serve better as an object-lesson against the evil effects of grafting than this *Daphne*, as at one time it was often increased in nurseries by grafting on to a naked stem, and apart from the fact that it was liable to die off suddenly, its natural beauty was never seen. It was once my good fortune to see a delightful specimen at Glasnevin, and this had good sized stones laid on the branches, which were thereby pressed close to the ground. At all events this treatment was, judging by appearances, most congenial to the *Daphne*.—T.

Kew gardeners' holiday.—Commencing on the 1st inst., the sub-foremen and gardeners employed at Kew finish work at twelve o'clock on alternate Saturdays, instead of once a month as before.

Michaelmas Daisies as pot plants.—Last season we made an experiment with Michaelmas Daisies as pot plants and were well satisfied with the result. The present is a good time to make a start, and I hope this note may induce many readers of THE GARDEN to give them a trial. Select strong, stout shoots with a

few roots if possible, and pot them in 4-inch pots, placing the young plants in a slight heat for a few days, afterwards removing to a cold frame when well rooted, which should be by the middle of May. They may be potted direct into the flowering pots, which should be from 8 inches to 10 inches diameter, according to the vigour of the variety. A good holding loam cut direct from the stack will grow them well. Place on a hard bottom in the open for a few weeks after potting, and towards the latter end of June they may be plunged and staked, keeping the plants to a single stem. Feed liberally with liquid manure during August and September, and as the flowers begin to open remove to a cold house to protect them from the dews. They will be most useful to anyone requiring a change in the conservatory, and for house decoration also. Our best varieties were Arcturus, Elegantissimus, Nancy, and Robert Parker. Perhaps Mr. Molyneux or Mr. Beckett could give a list of the best varieties for pot culture.—H. WILSON, jun., Cole Orton Hall, Ashby-de-la-Zouch.

Acetylene gas refuse.—In reply to "W. A. B.," the acetylene gas has been in use here since November, 1903. As far as I can judge there is no danger to vegetation in using the refuse. Here it is dumped out of the generator under a Holly, which to all appearance has received no injury.—S. M., *Auchterarder*.

Seeing "W. A. B.'s" enquiry respecting the above, I may state that a few years ago when I was at Barrowmore, Chester, the residence of Mr. Hugh Lyle Smyth, J.P., the acetylene gas was put in whilst I was there. The quantity of refuse that was available accumulated to many tons. Loads of it were carted and spread on the orchard, which is kept lightly dug and hoed, and it gradually worked into the soil, and quantities of it were buried in the kitchen garden in a quarter which was trenched up to get out the rock (red sandstone). The soil on that piece before excavation varied from 6 inches to 1 foot in depth, and it was filled back 3 feet deep. As some of the present men were there at the time, I feel sure if "W. A. B." were to write to Mr. Ritchie, the present head gardener, he would get further information as to what the results were, and, as the gas is still used, he may find out if it is employed for any other purpose.—A. D. MORRIS, *Bodysgallen Gardens, Llandudno*.

Fruit-growing in Perthshire.—While Blairgowrie is well known to almost every horticulturist as the centre of a flourishing fruit-growing industry, it is not sufficiently appreciated that in other parts of the same county there are similar rising industries. Among the places which have turned their attention to fruit is Alyth, whose industries were severely crippled about seven years ago by the destruction of its only spinning-mill by fire. This was not rebuilt, and great lack of employment ensued, but, in addition to other industries, within the last three years fruit-growing has greatly increased, and this season there are about 100 acres in fruit, in holdings of from half an acre to about twenty-five. Like other places, Alyth has found it desirable to have a fruit-growers' association, of which Mr. A. M. Ferguson is the able secretary, and good prices have been realised since its formation. Last year about £400 was spent in wages during the picking season, and, with a good crop, this should be nearly doubled in 1905. At Coupar fruit-growing is extending rapidly, and soon the increased acreage will enable the growers to compete on more equal terms with other centres. Last year witnessed a great extension, especially in Raspberry cultivation, and there is every prospect of a considerable further increase shortly. The requirements of the large preserving works of Messrs. J. M'Nee and Son at Crieff have led to that firm taking a lease of an extensive farm, called Coliny, near the town of Crieff, the larger part of the farm being occupied by Raspberries, Strawberries,

Gooseberries, and other small fruits, while smaller growers in the district find a profitable market for their produce at the works. At Scone the Scone Preserve Works draw largely upon the local produce for their supply, and this has led to a gradual extension of the area occupied by fruit. In the Blairgowrie district itself, as has been already mentioned in THE GARDEN, great extensions of the acreage under fruit, principally under Raspberries, are constantly taking place, and, despite the fears expressed by some that fruit-growing is being overdone, there is no decrease in the prosperity of the industry. About £36,000 are said to have been realised for fruit last year, and the general excellence of the fruit and the able management of the Fruit Growers' Association secure a ready market at a remunerative price.—A.

Notes from Baden-Baden.—I am delighted with a clump of *Iris reticulata* var. *Melusine*, sky blue flowers with an orange crest. *Tulipa kaufmanniana pulcherrima* has been very showy; it is an early, very large flower, glistening yellow with scarlet streaks and blotches inside, and scarlet with a yellow rim outside. *Chionodoxa amabilis* is still in full beauty; it has a large truss and large flowers of a soft white with a faint shade of rosy lilac, and it is three weeks later than *Lucilia*. A new species of *Saxifraga* (*Megasea*) from North-Western India has flowers of snowy whiteness. *Physotrichis gnaphalodes* is a very handsome, shining, yellow-flowered Crucifer, very suitable for the alpine garden; its grey mossy foliage heightens the brilliant yellow of the blooms. *Anemone blanda* seems to give improved forms. One flower here was over 2 inches across.—MAX LEICHTLIN, *Baden-Baden*.

Shortia uniflora.—With reference to the differences between *S. uniflora* and *S. galacifolia* mentioned in my notes in THE GARDEN for the 1st inst., kindly print the following: As it is not unlikely that the two *Shortias* may be occasionally confounded, the chief differences between them may be noted here, placing the characters of the older-cultivated *S. galacifolia* first and those of *S. uniflora* in italics. Flower-stems 3 inches to 4 inches in length; *flower-stems 2 inches to 3 inches in length.* Corolla funnelled, about 1 inch wide at mouth, pure white; *corolla widely expanded, 1½ inches or so wide, usually pale bluish in colour.* Petals never reflexed at edges; *petals often reflexed at edges.* Stamens contained in corolla tube; *stamens projecting beyond corolla.* Leaves 2 inches or more long; *leaves often less than 1 inch long on flowering plants.* Leaf-stalks 2 inches to 4 inches long; *leaf stalks but little more than 1 inch in length or less.* The plants of *S. uniflora* growing here may be further noted by their flowers opening early in March, quite three or four weeks in advance of those of the American species, while the plant, owing to the shortness of its petioles or leaf-stalks, is always dwarfer, its leaves forming an almost flat carpet near the soil.—D. S. FISH.

Cyclamen hederæfolium.—A considerable amount of uncertainty exists in the nomenclature of *Cyclamens*, the above title being applied to two distinct species, namely, *C. repandum* or *vernum* and *C. neapolitanum*. Correctly speaking, the only *Cyclamen* that has a right to the synonym of *C. hederæfolium* is the April-flowering *C. repandum*, but the September-blooming *C. neapolitanum* is even more generally known as *C. hederæfolium*, especially in the south-west. This is the species that Mr. John Terrington refers to under the title of *C. hederæfolium* on page 159. That its characteristics fully entitle it to the synonym was pointed out by the late Mr. Wolley-Dod about ten years ago, when he wrote: "The commonest misnomer of *C. neapolitanum* is *C. hederæfolium*, a name which corresponds with its nature, for both in shape and colour its leaves strongly resemble those of wild Ivy, and had not that name been anticipated by another species, its propriety as



THE MOSS PINK (*PHLOX SUBULATA*).

applied to *C. neapolitanum* could not be called in question." Mr. Peter Barr's statement, referred to by Mr. Terrington, that *C. Coum* and *C. ibericum* flower in the autumn, was evidently a *lapsus calami*.—S. W. FITZHERBERT.

Crocus obesus.—In looking through my garden on the last day of March I found that *Crocus obesus* was the latest of the Crocuses to flower here, but a search through Maw's "Monograph" and a number of other works of reference fails to give any authority for the name of *Obesus*. This *Crocus* has been offered for years by Messrs. Barr and Sons and others under the name here given, but I am inclined to think that it may be one of the many forms of *Crocus vernus*. While this may be so, it is a pleasing little *Crocus*, the colouring being correctly described in lists as "purple, shading to darker purple at the base." It is valuable, even for its late flowering alone, for it is in perfection here when practically all the other Crocuses are past their best. I shall be grateful to anyone who will throw some light upon its name and origin.—S. ARNOTT, *Carsethorn, by Dumfries, Scotland*.

NOTES ON HARDY PLANTS.

THE DWARF PHLOXES.

THIS North American family includes many popular garden plants, the best known of which are the numerous varieties of *P. paniculata*, or *decussata* as it is sometimes called. These constitute a prominent feature in many gardens, either planted in groups in the herbaceous border or placed by themselves in beds. These, with *P. maculata* and *P. glaberrima*, form the taller growing section of the family, which also includes a number of dwarfer-growing kinds of spreading habit, combined with free-flowering qualities. These low-growing plants are excellent subjects for ledges and banks in the rock garden, or for a well-drained position in the front of the herbaceous border. They are charming in spring, one of the most beautiful being the Moss Pink (*P. subulata*), which forms large cushions of foliage close to the ground so thickly covered with flowers that the

foliage is often entirely hidden. Though perfectly hardy, they suffer a great deal from damp in winter, so that they require a sunny and well-drained position in light, rich soil. All the dwarf Phloxes are readily increased by cuttings in summer. These may be taken off after the plants have finished flowering, inserted in pots in sandy soil, and placed in a close, shady frame for a time, when they will strike freely and form nice plants ready for planting out in the late autumn. Old-established clumps which have formed large patches may be top-dressed by working in some rich soil between the trailing branches. The following are all dwarf kinds, the tallest scarcely reaching 12 inches in height:

P. amara (*Bot. Mag.*, t. 1308).—A well-known charming plant of prostrate habit, with evergreen hairy leaves and bright rose-coloured flowers in profusion. It has been in cultivation for nearly a century, and is a native of the hills and dry barrens of Virginia and other parts of the United States. A useful, early-flowering plant, it grows freely in any good soil, and is used extensively for spring effect.

P. divaricata (*Bot. Mag.*, t. 163).—This is one of the tallest of this set, but seldom exceeds 1 foot in height. It produces its large, pale blue flowers in April and May. Unlike most of the other dwarf Phloxes, it does not last long in flower, although it is well worth growing on account of its hardiness and free-flowering qualities, if of short duration. There is a variety with almost white flowers, and a variety *canadensis* with smaller flowers, but broader segments and darker in colour, blue, tinged with lilac. The latter was introduced from Canada in 1826, whilst the type has been in cultivation since 1746.

P. Douglasii is a native of the Rocky Mountains, and varies a good deal in the colour of its flowers, which are purple, lilac, or white. It is of tufted habit, with rigid leaves, one form growing on dry, sunny positions and forming a close cushion, whilst another form grows in moister places and is of laxer habit.

P. ovata (*Bot. Mag.*, t. 528).—A handsome plant, with somewhat fleshy leaves and smooth stems, bearing corymbs of large, rich, purple-rose coloured flowers. It has been in cultivation since the year 1759, and is very hardy, doing well in stronger soil and moister situations than the others. It grows about 9 inches high.

This plant is often grown under the name of *P. carolina*, which is really a variety of this species with taller, hairy stems and smaller flowers, light purple-rose in colour, and starred in the centre with a darker shade. This latter plant was the first kind of *Phlox* introduced into this country, having been in cultivation since the year 1728. It is a native of South Carolina, and is less hardy than the type *P. ovata*.

P. reptans (*P. stolonifera*, *Bot. Mag.*, t. 563).—A pretty little plant of dwarf creeping habit and reddish purple flowers, suitable for the rock garden. It is very free flowering, sending up numerous stems 4 inches to 6 inches high about the beginning of May, each bearing about six of its richly-coloured flowers. A useful plant for spring bedding, as it is easily propagated by its runners, and thrives well in light, rich soil in a partially shady position. It is a native of damp woods in the Alleghany region of the United States.

P. Stellaria is a native of Southern Illinois, where it is found on the cliffs of the Kentucky River in fissures of precipitous rocks. It is closely allied to *P. subulata*, but is of more spreading habit, has longer leaves, and more scattered flowers. These are very pale blue or almost white in colour. *P. s. var. lilacina* is a charming free-flowering form, producing an abundance of bloom, and lasting for a considerable time in beauty. This plant is of hybrid origin, and is sometimes placed as a variety of *subulata*, but it is more closely allied to *P. Stellaria*.

P. subulata (Moss Pink, *Bot. Mag.*, t. 411).—A prostrate growing evergreen perennial, forming Moss-like tufts of matted foliage only a few inches high, covered in spring with sheets of flowers of various shades of colour. The type has pale purple or flesh-coloured flowers, with a dark purple eye, and is a native of the Eastern United States, growing on rocky bare hills and sandy banks. Many improved garden forms have been raised from this species, some of very compact habit, others of free growth and taller in stature, with flowers of many shades of crimson, purple, rose, lilac, and white. *P. subulata var. nivalis* (Nelsoni) is a well-known plant, with its sheets of white flowers in spring quite covering the foliage. A hybrid between this species and *amœna* has been named *P. procumbens*, and is like a *subulata* with broader foliage and slightly taller in habit. A pretty and rather rare plant is

P. pilosa, which grows about 1 foot high, with flat corymbs of purple flowers of large size. It is figured in the *Bot. Mag.*, t. 1307, and, like all the others, is a native of North America.

W. IRVING.

TREES AND SHRUBS.

PRUNING SHRUBS.

PRUNING is one of the most important of garden operations, and also one of the least understood. Proper pruning at the right time results in more vigorous growth and increased floriferousness, but to hack away indiscriminately is to spoil the decorative value of many plants for years. Generally speaking, spring-flowering trees and shrubs should be cut back directly after they have bloomed, and those which flower in the summer or autumn should only have the weakly wood thinned out to admit light and air to those growths that are left. There is, however, no hard and fast rule for pruning, individual species having to be treated according to their requirements, but the following summaries of various trees and shrubs will be found helpful.

Laurustinus and *Forsythia* should be cut back in spring directly after flowering, and the following, though blooming later, are all the better if cut back in spring, viz., *Colutea*, *Hedysarum*, and

Hypericum. Such flowering shrubs as *Buddleia*, *Deutzia*, *Kerria*, *Leycesteria*, *Philadelphus*, *Ribes*, *Spiræas*, *Lilacs*, *Snowberry*, and *Guelder Roses* should only have their growths thinned out after they have flowered, but, if any have become too large, they can be cut down in early spring. This will mean the loss of a season's flowers, but the plants will grow and bloom more vigorously afterwards. *Furze* and *Brooms* should not be pruned at all, but any overgrown plants should be cut back in May. *Willows*, *Dogwoods*, and other plants that are grown for the colour of their stems in winter should be cut down each spring, as the young wood is always the more brightly coloured. The common and *Portugal Laurels*, *Hollies*, *Yews*, *Osmanthus*, *Phillyræas*, and *Privet* should be trimmed in May—either lightly if they only require shaping, or be cut hard back if they have become too large. *Berberis* and *Rhododendrons* should not, as a general rule, be pruned at all, but, if they are in bad health or have become too large, they can be cut hard back in April, and, though this will mean the loss of one season's flower at least, the plants will be all the better afterwards. When *Rhododendrons* have been cut down a watch must be kept for any suckers that spring from under the ground, as many *Rhododendrons* are grafted plants, and the suckers are merely *R. ponticum*, which will smother the better variety if not kept down.

Such flowering trees as *Prunus*, *Pyrus*, *Thorns*, *Laburnums*, *Magnolias*, and *Catalpas* should not be cut back unless they have become unshapely, but the branches should be thinned occasionally to admit light and air to the centre of the tree. This should be done directly after they have flowered. *Chestnut*, *Lime*, *Ash*, *Oak*, *Poplar*, *Elm*, *Beech*, *Hornbeam*, and *Robinia* should be pruned in August or September, but this should consist more of a good thinning rather than a cutting back, though the latter is necessary if the trees have become too large or unshapely. *Pines* and *Evergreen Oaks* are best left until October, just as the plants are getting dormant, and should not be cut more than can possibly be helped, as they are very impatient of pruning. *Spruces* and *Silver Fir* should never be pruned, while *Cupressus*, *Retinosporas*, *Thuja*s, and some of the *Junipers* are benefited by an annual or biennial clipping.

In pruning it is necessary to give a coating of gas tar over any cuts that are an inch or more in diameter, and care must be taken when removing large, heavy branches to saw upwards from beneath a little way before cutting them through from above, as large limbs are apt, when partly cut through, to break off suddenly and tear a piece of the main trunk away in their fall. In cutting away any limbs that spring from the main parts of a tree, they should not be

cut through as to leave a stump, which will decay, perhaps even into the trunk, but be sawn as close as possible to the trunk. Then, if the wound is covered with gas tar, the tree will keep sound and gradually cover the place with fresh bark.

Bagshot, Surrey.

J. CLARK.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

LATE-KEPT APPLES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—As incidental to the present discussion, may I state that the Royal Horticultural Society's fruit committee did, at its last meeting, invite the council of the society to agree to the furnishing of a list of varieties which are past their best, and should not be exhibited at the society's shows or meetings after the new year is in. The committee were most unwilling to make fish of one and fowl of another of the various Apple exhibitors, but realised, all the same, that so many dishes are presented to their notice for awards, late in the winter, of varieties that have long ceased to be edible or to have any domestic value. It has been strongly complained to the committee that granting medals to varieties long past their best is misleading to the public, who know no better. Let us have exhibits of really good late-keeping and well-kept varieties by all means. Any such exhibit of from twenty-four to thirty dishes, though of less imposing appearance, has infinitely more value than a collection of one hundred dishes, one-half of which are, when shown, good for nothing.

A. D.

ANEMONE BLANDA IN THE BORDER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am sending two photographs, taken a few days ago (the 21st ult.), of a section of my garden, with many regrets that the art of photographing in natural colours is so little advanced. It will be seen, however, I hope, how bright and effective are the patches and edgings of *Anemone blanda* in the borders. By themselves they form a charming picture when the sun is shining, with their neat foliage and the delicate shades of blue, white, and pale rose of their numerous flowers, and it always seems strange to me that they are not more extensively grown in private gardens. With me they have never been so glorious as they are this spring; they seed most



A BORDERING OF THE BLUE WINTER WINDFLOWER (*ANEMONE BLANDA*).

freely—too freely, perhaps, in some places—and are rapidly extending themselves, in “attack formation” as it were, over the whole garden. The little seedlings are easily removed at first, but soon strike deep into the soil and require careful watching in a crowded border or among choice plants. I find the flowers vary from pure white to fine deep blue, while some have a decided rosy tint. There is a so-called variety, *A. blanda rosea*, and another with blue and white flowers termed *scythinica*, but I really do not see the necessity for any “trinomial” in the case of this variable species. S. G. REID.

[We reproduce the photograph of the *Anemone*.—Ed.]

THE BULLFINCH IN THE GARDEN.

[TO THE EDITOR OF “THE GARDEN.”]

SIR,—My opinion regarding the bullfinch is one of admiration and detestation. I cannot but admire his beautiful plumage, nor can I fail to detest his wholesale destruction of perfectly sound fruit-buds. I am not prepared to say that he will reject a bud which contains a grub, but I am sure that such buds do not satisfy his voracious appetite. I can also affirm, to my cost, that any amount of old and unprotected fruit trees will not prevent his destructive raids on young and healthy plantations of Black Currants, Gooseberries, Plums, Cherries, &c. Two years ago I had ample ocular evidence of this fact. The gardens here are partly surrounded by an extensive and picturesque old orchard, which is a happy hunting ground for many feathered friends. But Mr. Bullfinch found his surroundings in the orchard less to his taste than a large plantation of flourishing Black Currants giving promise of a splendid crop of fruit. In two days these bushes were almost denuded of buds by no other agency than that of bullfinches. Since that period I have used stringent measures to keep this—one of the gardener's worst enemies—at bay. J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

ENGLISH *v.* AMERICAN APPLES.

[TO THE EDITOR OF “THE GARDEN.”]

SIR,—The letters upon this subject in *THE GARDEN* are most interesting. Much that has been said is only too true of our Apples and culture, but I am convinced that a deal has been said that is not the outcome of practical knowledge about English *versus* American sorts. I believe that if the opinion of the best judges was taken they would decide in favour of many of our own varieties. We have good, bad, and indifferent among our sorts, and far too many of them. Still, we have Apples that are the very best, and I endorse the opinion that has often been given, namely, that no country produces them so good from the point of view of flavour. Those who say we have no good sorts after Christmas surely cannot have had much experience in growing and keeping the best. I can remember good varieties forty-five years ago that were kept in excellent condition in a stone tower until May. I doubt if anything finer is to be had to-day than some of the Wheeler's Russet and long keeping Nonpareils. But at that time the fine imported cooking Apples were not to be had. Some three years ago a friend sent to me from Birmingham the best four of the imported sorts in February, and I sent him four sorts grown in our garden. He endorsed my original statement in favour of the home-grown varieties. In colour I admit many imported Apples are finer. But even here if some of our varieties are grown in the best soil, and by growers who understand their work, they prove close competitors. In regard to Cox's Orange Pippin having lost its flavour by the new year, in my experience this is not so when they are kept in a good store. Well-grown Mannington's Pearmain, Boston Russet, Cockle's Pippin, Lord Burghley, Scarlet Pearmain, Sturmer Pippin, King of Tompkin's County, Ash-

mead's Kernel, and several others are a good selection, and hard to beat for flavour. Neither are they of poor appearance when well grown.

Much has been said against our cooking Apples, but who can complain of Blenheim Orange, Golden Noble, Kentish Fillbasket, Lady Heniker, Alfriston, Annie Elizabeth, Northern Greening, Hambledon Deux Ans, and others one might name? Wellington would be named by some, but I prefer Alfriston; the former is too acid. For years I have tried many of the imported varieties, comparing them beside home-grown ones, and I fail to see how the former are superior. I admit King of Tompkin's County is good, but I have fruit grown on a bush tree equalling imported fruits in every way. But who can say Baldwins are good? Another side of this question is the price. Only think of paying 8d. per pound for Newtown Pippins; and this was charged in our town during early March. A fruiterer, when showing me a choice sample in his shop window, on being asked if he could charge this for the best Cox's Orange Pippin, said he could not, but he considered Cox's the best Apple on the market. This same man offered me 2d. per pound for good Cox's Orange in January. Now it is evident that size and colour are the chief points in market Apples. In the autumn this was evident by the price given for large Peasgood's Nonesuch in Covent Garden; but this has only size and colour to recommend it. It is evident, too, that the British public will pay for these attributes. Lately I have been using, baked and stewed, Lord Burghley, Annie Elizabeth, and Hambledon Deux Ans, and want nothing better. Annie Elizabeth does well at Sherborne Castle, and keeps till the end of March.

Chard.

J. CROOK.

LILIUM TESTACEUM IN THE SOUTH-WEST OF SCOTLAND.

[TO THE EDITOR OF “THE GARDEN.”]

SIR,—I recollect reading some time ago that *Lilium testaceum* is becoming scarcer, and less reliable than was at one time the case. One would like to know in what quarter this is experienced, as it is one of the most satisfactory of our Lilies in the south-west of Scotland. I was visiting a small garden recently which was undergoing its periodical cleaning up for the spring, and saw the owner busy lifting, separating, and replanting a fine, healthy lot of bulbs of *Lilium testaceum*. Contrary to the usual practice, it is done in this garden in spring after the plants have made some growth, and the bulbs are replanted a few inches apart. This is done every three years or so, and it is surprising what fine flowers are produced under this treatment. In another part of the same garden there is a clump which was divided last year, after having been undisturbed for a rather longer time. It consisted of no fewer than twenty-three flowering bulbs. The soil is of a rather sandy nature, some parts being on a sandy, and others on a rather stiff, subsoil. In several other gardens in the same neighbourhood *Lilium testaceum* does equally well, but in these it is not subjected to removal in spring, as a rule.

Carsethorn, Dumfries.

S. ARNOTT.

GARRYA ELLIPTICA.

[TO THE EDITOR OF “THE GARDEN.”]

SIR,—Mr. J. Jeffrey's note of this handsome Californian shrub flourishing in the open in Kirkcudbright should furnish proof to planters that it is not as tender as its habitat would imply. It is, indeed, such a hardy subject that there are probably few places in the British Isles where it would need wall protection, for it succeeds in the open in bush form in the neighbourhood of Edinburgh. Another valuable characteristic of this shrub is that it will accommodate itself to almost every description of site and environment, and will produce its catkins as freely on a steep bank of rubble that

is dust-dry in summer as on a level surface of prepared soil, though its growth will naturally not be so vigorous. In partially shaded positions it may also be seen bearing numerous tassels, so that there are few situations for which it is unsuited. In the south-west many splendid specimens are to be seen, some 15 feet in height and as much through, which bear catkins in such profusion that their foliage is almost hidden. Some of these catkins are 1 foot in length.

S. W. F.

[TO THE EDITOR OF “THE GARDEN.”]

SIR,—Seeing in *THE GARDEN* during the past few weeks references to the Garry elliptica, I may state that when in the employ of Mr. H. L. Smyth at Barrowmore, Chester, I was sent to Arley Hall, Northwich, for cuttings of *Rosa arvensis* to grow for fox coverts. Mr. Smith, the head gardener, kindly showed me round, and I well remember admiring a large tree of the Garrya on the wall. Mr. Smith kindly gave me a few cuttings, one of which grew well and was eventually planted on the gardener's cottage at Barrowmore facing west, and that is a cold district. I believe it is doing well.

Bodysgallen.

A. D. MORRIS.

THE WHITE SPINDLE TREE.

(*EUONYMUS EUROPEUS ALBUS*.)

[TO THE EDITOR OF “THE GARDEN.”]

SIR,—Mr. Richard Parker, in referring to the well-known Spindle Tree on page 157, makes no mention of the very handsome white-fruited variety. This is extremely distinct and effective, and serves as an admirable contrast to the common form; indeed, when the capsules open, the bright orange seeds, gleaming from the centres of the ivory-white, expanded carpels, at first sight have the appearance of flowers. This variety is sometimes found growing wild in Devonshire, and last autumn I saw several large branches, covered with fruit, that had been cut on Haldon Hill, near Exeter, while in Mr. Archer-Hind's garden I have met with both the type and the white variety thickly laden with berries. The deep red tint assumed by the leaves before they fall is also very beautiful.

S. W. FITZHERBERT.

THE SCARCITY OF ONIONS.

[TO THE EDITOR OF “THE GARDEN.”]

SIR,—Anything written by Mr. Beckett in regard to vegetable culture commands respect. The scarcity of Onions this past season has been often commented upon, due to local failures of some of the foreign crops, which the British markets seem dependent upon. Mr. Beckett is quite within the mark when he says “much of our land is well suited for Onion culture,” but does Mr. Beckett conjecture that an increased growth of Onions in this country will stop importations or convince purchasers that English-grown Onions are superior? From several years' experience of marketing Onions I am bound to confess that there is a limit to the demand for English-grown bulbs, and particularly when foreign ones are available. Then, with regard to the growth of large Onions by transplantation, I find that preference is given to the ordinary outdoor-sown stock; indeed, I have had to take a smaller sum per hundredweight for the apparently better root, because customers preferred the smaller ones. The Spanish Onion is a great favourite with hosts of consumers, by reason, it is said, of its milder flavour. To compete with these there is need of a mild-flavoured stock being made prominent by cultivation, and the Spanish grower and seller challenged. Where these are so favoured is more particularly among the working classes, who prefer Onions in a raw state. Even when grown large by indoor sowing and transplanting I find there is still much prejudice against them, and the same preference for the Spanish and Egyptian.

For home or private use I find little demand for the higher-class Onion, yet they are in every day use for flavouring. No doubt in this respect the gardener is absolutely at the mercy of the *chef*, not only as regards Onions, but other vegetables as well. I do not think there is another vegetable of the garden that commands the same admiration as a good bed of transplanted Onions, apart altogether from their culinary use and value. If there were a corresponding demand for them from the mansion and the greengrocer, then there would be certainly stronger inducements to extend this phase of vegetable culture. Onions, like Apples, require to be well stored, and unless this is done there is much loss from early growth and softening of the bulbs. It is towards spring that Onions sell more readily, presumably because at the time of harvesting and later there are so many put upon the market, crowded, as it is then, by the influx of Egyptian cargoes. Mr. Beckett very truly says "only good-keeping varieties should be grown." If this is done and they are attractively "roped," and so preserved until late winter by cool treatment, profit may be made more readily, but, at the same time, it must not be forgotten that the foreigner realises the open state of our markets and the partiality of the British consuming public for his goods so we can gain no tithe of monopoly. We have arrived at a period when hands are held up against further planting of dessert Apples; it would not require much enforced effort to bring about the same thing in Onion culture. Another point not to be overlooked is the fact that to reach the highest perfection in Onion growth an expensive outlay in manure and labour is incurred. This Mr. Beckett emphasises when he says, "To grow Onions well the land must be deeply and thoroughly worked, adding plenty of good farmyard manure," and though, as he says, they can be grown on the same site for many years, it could not be profitably done without further farmyard or other manure dressings. I doubt whether the market gardener can afford to devote so much expense to "first aids." He has, unfortunately, to study "first profits" resulting from his season's labour.

Wills.

W. S.

WATER GARDENING.

THE WATER AND WILD GARDEN.

WATER and wild gardening are now becoming very popular, and rightly so. The two go well together, and a well-managed garden of this sort will give endless interest and pleasure to those having a love for natural beauty over a longer period of the year than any other form of outdoor flower gardening. An immense variety of plants can be worked into these gardens at different times of the year.

Sheltered nooks should be made for winter and spring flowering plants, such as the hardy Cyclamen, Helleborus, blue Primrose, Winter Aconites, the Forde Abbey strain of Polyanthus, which is almost perpetual flowering, the various

species of Crocus, Arum italicum, Hepaticas, Narcissus minimus, spring Snowflake (*Leucojum vernum*), Iris persica, I. stylosa, I. Histrio, &c., and amongst winter-flowering shrubs Hamamelis arborea (Witch Hazel), winter-flowering Jasmine (*Jasminum nudiflorum*), Honeysuckle (*Lonicera fragrantissima*), Garrya elliptica, &c.

The beautiful water and wild garden is to be made from gently sloping ground, and if it forms a dell or valley the water garden can be made in the low ground, leaving the higher part for the wilder effect. In this water garden, if small pools can be formed, they are the most convenient, and a series of small pools cut out to look as natural as possible, with the water winding from one to the other through wide and narrow channels, with suitable water plants in the water and on the side banks of these channels, will have a far prettier effect in summer than one large pond. Every plant can be viewed with ease. Sufficient short-mown grass should surround or partly surround each pond, so that ladies can walk about comfortably to view the flowers of the Water Lilies or other aquatic plants.

Boggy backgrounds can be made to some of these pools, and bold groups of Iris Kämpferi,



BOG PLANTS, WITH BLUE AGAPANTHUS IN FOREGROUND.

Siberian Iris (*I. sibirica*), Spiræa palmata, S. p. alba, S. p. elegans, S. Aruncus, S. venusta, S. gigantea, Lythrum virgatum, L. roseum superbum, Epilobium angustifolium, E. a. album, Gentiana Andrewsii, the tall Day Lilies, Lysimachia clethroides, herbaceous Phlox, Senecio japonica, Saxifraga peltata, Rodgersia podophylla, the various Trollius, &c., and more in the background, and where they cannot encroach on these finer flowering plants, Bullrushes, the various tall bog and Water Reeds, and other rank-growing bog plants can be put. In the water in the channels connecting the various ponds plant the Arrowheads (*Sagittaria japonica*), S. gracilis, and the more beautiful variety called S. japonica monstrosa, also the flowering Rush (*Butomus umbellatus*), Marsh Forget-me-not, Myosotis palustris, Orontium aquaticum, the Arum Lily (*Calla æthiopica*), Peltandra virginica, and Alisma natans.

Then on the sides of the channels and close to the water plant all the varieties of Marsh Marigold (*Caltha*), Cardamine, Astrantia carniolica, Mocassin flower (*Cypripedium spectabile*), Funkias in variety, Helonias bullata, Parnassia palustris, P. caroliniana, Pinguicula, Himalayan Primrose (*Primula rosea*), Japanese

Primrose (*P. japonica*), P. sikkimensis, P. Parryi, P. denticulata, Ranunculus gramineus, and Spiræa japonica. To make a home for all the sorts of

HARDY WATER LILIES,

the water in the ponds should range in depth from 9 inches to 2½ feet. Where the water is 2½ feet deep plant the most robust-growing Nymphaeas, such as Nymphaea Marliacea albidia, N. M. carnea, N. M. chromatella, N. candida, N. colossea, N. Gladstoni, and N. alba at 6 feet apart. In the 2 feet deep water plant N. gloriosa, N. tuberosa rosea, N. t. Richardsoni, N. odorata gigantea, N. Marliacea rosea, N. lucida, N. Robinsoni, and N. William Doogue at 5 feet apart all ways.

In the water 1½ feet deep plant Nymphaea Arc-en-ciel, N. andreaana, N. suavissima, N. atropurpurea, N. Aurora, N. Barkleyi rosea, N. caroliniana, N. c. nivea, N. ellisiana, N. Froebelli, N. fulva, N. James Brydon, N. Laydekeri fulgens, N. L. rosea, N. L. lilacea, N. L. purpurata, N. flammea, N. ignea, N. Marliacea punctata, N. odorata alba, N. o. rosea, N. o. luciana, N. sulphurea, N. s. grandiflora, N. Seignoureti, N. sanguinea, and N. William Falconer at about 4½ feet to 5 feet apart. To prevent overcrowding, the old leaves should

be pulled off from time to time. It will give them a much fresher and brighter appearance, and the blooms will be better seen. There are one or two gems for the shallow water round the outside of these ponds, which must not be lost sight of, viz., Nymphaea pygmaea, N. p. Helvola, and N. odorata minor.

In deep or shallow water the Water Hawthorn (*Aponogeton distachyon*) will do well and bloom freely the greater part of the year. The Water Violet (*Hottonia palustris*) should have a place in clear, rather deep water, so that the Fern-like foliage can be seen in the water. In shallow water Eichornia azurea, Sagittaria montevidensis, Limnocharis humboldtiana, and Villarsia indica should have a place.

These four plants are beautiful and interesting, but require wintering under glass in a warm house.

PLANTS FOR THE WATER-SIDES.

In the moist ground in the water garden several sorts of Bamboos thrive well, and have a semi-tropical appearance. The following sorts do well: Arundinaria japonica, A. nitida, A. Simoni, Bambusa palmata, Phyllostachys aurea, P. Henonis, P. Mitis, P. nigra, P. viridi glaucescens, and P. Falconeri. To these Bamboos, Eulalia japonica, E. j. variegata, E. j. zebrina, and the varieties of Pampas Grass should be added. Among these plants also Gunnera manicata and G. scabra should stand out conspicuously, their gigantic foliage being very telling.

Here also all the sorts of Cannas, the varieties of the scarlet Lobelia (*L. cardinalis*), all the Agapanthus umbellatus, the varieties of Hydrangea hortensis, and Erythrina Crista-galli make a grand display in the hot months of summer planted in the grass, and when they are taken up at the end of the summer their places can be filled with Forget-me-nots, Polyanthus, Hyacinths, and Daisies.

Hydrangea paniculata delights in this moist ground, and should be planted in groups

permanently a short distance from the bog ground. Amongst these plant *Lilium auratum*, *L. tigrinum*, and *L. pardalinum*. If the young wood of these *Hydrangeas* is cut back every winter to within two or three eyes of the base they will make fine bushes, and the heads of flowers will be very large.

W. J. TOWNSEND.

Berks.

COLOURED PLATE.

PLATE 1272.

DARWIN TULIP
CLARA BUTT.

IN THE GARDEN of the 4th ult. a coloured plate was given of the beautiful Darwin Tulip Margaret or Marguerite, and an accompanying note on the value of the self Tulips for massing. The coloured plate given with this number is of the self-coloured Tulip Clara Butt, one of the handsomest of the whole race. A bed of it is a rare picture of beautiful colouring.

THE FLOWER GARDEN.

PANSIES FOR THE GARDEN.

NOW that we have got through the worst of the unpleasant weather experiences of the season, no time should be lost in carrying out the spring planting of these beautiful free-flowering hardy plants. Assuming the ground was deeply dug and well manured some time since, and the surface soil left in a rough condition, the ground should now be in a nice workable condition. The frosts and windy weather have brought the soil into a nice friable condition, and if this be broken up lightly with a fork, and subsequently levelled down and the quarters allocated to them be marked out, planting may proceed apace. To do this effectively one needs to consider what colour effects are to be produced, otherwise it is possible that incongruous arrangements may be brought into effect instead of those beautiful harmonies and contrasts which invariably follow a well-conceived scheme of planting.

Tufted Pansies may now be had in so many pleasing shades of colour that nothing harsh or unpleasant can possibly be created in whatever way they may be arranged in the beds or borders. Nevertheless, it is better when attempting to plan an idea for planting to arrange the colours so that the best effects may be obtained. Yellow has always been a conspicuous colour among Pansies, and now that so many beautiful rayless

PONDS OF HARDY NYMPHÆAS (WATER LILIES).

varieties are to be had in abundance, and these in various tones of yellow, from the palest primrose to the richest orange yellow, it is possible by the use of the various tones of this one colour alone to make a pleasing display. The growth, too, of Tufted Pansies of a yellow colour has improved considerably, most of the newer sorts being very tufted and at the same time freely flowered.

Among white Tufted Pansies there are creamy white, others of a rich cream colour, and some of the purest white imaginable. These, in association with some of the softer tones of yellow, should be taken full advantage of. Those of a blue colour, too, are increasing in variety, and instead of confining our selection to blues of an imperial colour, our selection may vary from those of mauve-blue, passing on to heliotrope-blue, and finishing with those of an indigo blue colour. There are other intermediate shades, of which a reference to any well-known specialist's list will enable anyone with the slightest appreciation of these pleasing tones to make a selection certain to please.

Of rose-coloured sorts we have very few representatives, yet they are worth a place where these plants are freely grown. Unfortunately, the fancy marked flowers do not possess that

ably in recent years, probably owing to the persistency with which one grower alone has followed up their improvement. Among this type of the flower are to be found many dainty forms, and although they may not perhaps produce the effect that the self-coloured flowers invariably do, yet there is a beauty in these margined sorts that places them in the front rank for bedding. Habit, in many instances, is distinctly good, while their free-flowering propensity cannot be denied.

The miniature-flowered Pansies, when once they get well into growth, are invaluable as edgings, and more particularly useful in the rock garden. There will come a time when those who value the alpine garden will learn to regard the small-flowered Pansies with more favour than they do to-day. Many delightful little gems are being raised and distributed, and they only need to be grown to be appreciated. Clumps of these little plants, one or two years old, when well looked after in the rock garden, make delightful tufts freely studded with dainty blossoms, and this is the way in which they should be grown.

Referring to the ordinary forms of the Tufted Pansies, the most effective way of planting them is to group them in the hardy border, or devote

beds entirely to them. Often these plants are planted too close together, this probably being due to the desire to create immediate effects. Tufted Pansies of normal growth should have at least 6 inches of space each, and we would prefer to allow fully 9 inches in order to do justice to them. The intervening spaces between the plants, when arranged in this way, invariably become covered in the course of a season's growth, and the effect as the summer advances is distinctly pleasing.

When planting use plenty of good, light, gritty soil. Plant firmly at all times, and put the plant into its collar, levelling off neatly at the completion of each one. Be particularly careful to deal with one variety at a time, otherwise there is the risk of the plants getting mixed,



NYMPHÆA (WATER LILY) POND WITH BRITISH BOG PLANTS IN BACKGROUND.



TULIP CLARA BUTT

and spoiling the general effect when they come into flower. Plant only on nice bright days, when the ground may be broken up into a friable condition, as the soil when it is sticky and pasty is difficult to handle, and under such conditions is less likely to do justice to the plants.

It is a good plan when the plants are received from the specialist to stand them in pots overnight, just sprinkling them overhead lightly with water from a fine-rosed can. This will have the effect of imparting to them crispness and freshness, so that, as the moss is removed from them on the following morning, they may be dealt with more easily, and encouraged to become established more quickly as a consequence. This is a seemingly insignificant detail, but with plants that come from a distance a great deal depends upon its observance. Unless the weather be very dry for a day or two subsequent to the planting no water will be required; but when this has to be applied give a liberal application, using a can with a fine rose for the purpose. Left in this condition it is safe to anticipate a successful issue, and in the course of a week or two the first of the fast developing buds should be fully open, and the display of the season begun.

Just before closing let me emphasise the importance of making a wise selection. There is a certain amount of sentiment with regard to the use of the old and well-tried sorts, but seeing that raisers have been so busy of late in raising new sorts, and enriching our collections of cultivated varieties, the grower would be most unwise were he to neglect the opportunities now offered of acquiring stock of new and choice sorts that supersede the older varieties owing to their enhanced value. They may be purchased very cheaply now, so that they are brought within the reach of everyone interested in the cultivation of hardy flowers.

WHITE VARIETIES.

There are several excellent white Tufted Pansies:

White Champion.—A very pure white variety, with neat, rayless eye; good habit. This is a splendid sort for the cooler weather of late summer and autumn.

Seagull.—Another excellent pure white variety that maintains its position as a good bedding sort very well. The flowers are rayless and have a neat yellow eye; habit good.

Snowdrop.—This variety, like the first-mentioned, was raised in 1903, and is of strong growth. The flowers are large and pure white.

Masterpiece.—Charming plant with a good tufted habit, developing quite freely rather small, rayless, pure white flowers.

Edward Mason.—At one time this variety was thought highly of. It is of good growth, developing rayless pure white flowers.

Elaine.—This is a rather large flower of the purest white with a yellow centre and slightly rayed.

Emma Sophia.—Very pure, with a neat yellow eye and rayless; very free.

Marchioness.—A creamy white self, one of the freest to bloom. As a bedding plant it is good, but there are others better. This variety is synonymous with *Niphetos*.

White Empress.—This variety was also distributed under the name of *Blanche*, and is a fine circular, creamy white flower of good size and excellent substance. The habit is dwarf and sturdy.

Devonshire Cream.—A beautiful variety, the flowers cream in colour and rayless. In the late season the growth is apt to get somewhat leggy, otherwise it is very fine.

William Tell.—Introduced in 1898, this variety, for the years intervening, has given a good account of itself. It stands the hot and dry weather well, developing large, creamy white rayless flowers with a yellow centre; specially good for bedding.

Peace.—A seedling of 1903, ground colour creamy white, tinted blush and heliotrope. The flowers are rayless, the growth is sturdy, and tufted.

Favorite.—Seedling from *Blue Gown*, but with a better constitution. The plants are very free, the colour French blue, a quite distinct shade.

Jackdaw.—Very beautiful variety, colour deep heliotrope-blue, with a slight suspicion of mauve and a neat yellow eye. Stout erect flower-stalks carry the blooms well above the growth.

Kitty Bell.—Beautiful and distinct shade of lavender. It blooms profusely, and the flowers are rayless and pretty. It is rather vigorous in growth, and apt to get leggy in late summer.

Virginian.—A lovely blush lilac rayless variety. Habit tufted, free flowering.

Duncan.—A distinct imperial purple self, and slightly rayed; bright yellow eye. The flowers are on erect stems well above the foliage.

Admiral of the Blues.—This is a fine deep blue flower with an effective yellow eye and rayless. D. B. CRANE.

TROPICAL FRUITS.

THE MANGO.

TO repeat the praises of the Mango (*Mangifera indica*) or to exhaust its uses would be unnecessary, seeing that it is one of the best known tropical fruits, and one of which there are more cultivated varieties than probably any other that could be mentioned. It is a native of India, in which country it is still best known under a number of varieties, though it is very largely grown in other hot countries. Though the fruits are so largely eaten by the natives, not only in India, but in all countries where the plant has been introduced, the taste for Mangoes amongst Europeans is said to be an acquired one. In the form of Chutney, Mangoes are well known in England, and the young fruits of the best varieties are also to be had preserved in syrup in bottles, but this is an expensive delicacy for dessert. With a plant so common, and which produces its fruits so abundantly, we might reasonably expect the fruits to become generally obtainable here, especially in view of a report published a few years ago on the fruit-exporting prospects of Dominica, where it was stated that "the supply of Mangoes in the island is practically unlimited, for the tree is one of the commonest in the lowlands. The people, being very fond of the fruit—indeed, in the season it forms an important part of their food—they eat it whilst walking along the roads, and throw the seeds away. These soon germinate, and as the seedlings are very hardy the tree springs up in all directions, and it is found by the sides of all the roads and paths. There are many varieties of the Mango in the island. The grafted kinds yield the best and most luscious fruits. Large quantities of Mangoes are shipped to the neighbouring islands." The season extends from April to October.

Claremont, Lympstone. JOHN R. JACKSON.



THE MANGO (*MANGIFERA INDICA*).

(Reduced. Shown at the recent exhibition of Colonial Fruits held by the Royal Horticultural Society.)

White Beauty.—This plant has a creeping growth, and the foliage is bright green. The flowers are rayless.

VARIETIES OF OTHER COLOURS.

Quite a host of beautiful Tufted Pansies are of blue, lavender, lilac, and kindred shades.

Marian Waters.—This is a pretty blush lilac flower of circular shape, slightly rayed and with an orange eye. The flowers are borne on erect flower-stalks that stand out well above a charming tufted growth; blooms profusely.

Bridal Morn.—Pale heliotrope-blue. Free flowering and distinct.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

PEGGING DOWN ROSES.—When Rose pruning is being carried out it is well to remember that excellent results can be obtained by leaving almost their full length good shoots of the strong-growing varieties instead of shortening them back as is usual. Just cut off the ends of the shoots and then bring them parallel with the ground, fastening them in the soil by means of a peg. Great care must be taken in doing this so as not to break off the shoot at the base. It must be brought down gently at first, and not finally pegged down unless this can be done with ease. If good, well-ripened shoots are chosen they will burst into growth and flower at every bud throughout their length, and will prove a great delight. After the flowering season is over the pegged down shoots may be removed and other strong ones trained in to be pegged down the following year. This method of training Roses is carried out in several beds at Kew, and the effect is excellent. Grace Darling is one of the most satisfactory varieties for this purpose.

Thinning Hardy Annuals.—Many people sow their seeds too thickly and injure the plants by delaying the thinning. Strong-growing plants, such as Godetias, may be thinned to 5 inches or 6 inches; weaker-growing things to 4 inches. Do the work before the plants draw each other up weakly. Less disturbance will be given if the thinning is done immediately after a shower. Stir the soil often with a small handfork or hoe. A very light sprinkling of nitrate of soda or some other artificial will be helpful.

Sub-laterals, and How to Deal with Them.—These are young shoots which spring from the axils of the leaves of the current year's growth. They are common on Vines and Peaches where the growth is more or less restricted. For instance, in the culture of Vines, with the first bursting of the buds into growth the young shoots are thinned, leaving only those which are showing bunches of blossoms, which afterwards will develop into bunches of Grapes. In due course the terminal bud is pinched out.

This is termed Stopping, and is generally effected when one or, at the most, two perfect leaves are showing beyond the bunch of Grapes. At this point the training begins by gradually drawing down the shoot to the wire in its proper position. This is generally done in a tentative manner. If hastily done at one operation, when the sap is forcibly ascending, the young shoots in their checked position may be unable to stand the strain and splinter off.

Well-defined Ideas.—It simplifies matters if we work on a well-considered plan. The usual procedure is, in the case of Vines, to stop all sub-laterals to one leaf and permit no further progress. But I think it is better to rub off all sub-laterals below the bunch and stop all above in the orthodox way. Nothing should be permitted to interfere with the work of the main leaves, which nourish the buds at their base, and in spur pruning it is the bottom buds which are left at the autumn pruning to furnish the next year's crop.

Recent Experiments in Manuring appear to show that a good deal of manure is wasted, and the crop made needlessly expensive. If a moderate use is made of chemical or artificial manures, in combination with stable or yard manure, the expense will be less and the result

more profitable. Potash and phosphates, being slow in action, should be sown with the crop, but nitrates should be given later when the plants are making growth, preferably in showery weather.

Heading back Young Fruit Trees.—Any trees which have been well-developed in the nursery are termed cut-backs, and may be put in to train without cutting back, as the work is generally understood, but any tree deficient in branches must be cut back to secure a proper foundation. All trees planted in autumn should be cut back more or less now, but trees planted since Christmas should be left till next autumn. Let them have time to make roots, and the growth will be proportionately stronger and better for the worker's hand.

Planting Asparagus.—April is the usual month for planting, just as the crowns are starting. Yearling plants which have been grown thinly are better than older ones. The modern idea is to plant in shallow trenches at wider intervals, and the experience of those who have tried this is against the old-fashioned long, narrow, grave-like beds, with the plants thickly crowded together, where only the fittest survive. If Asparagus plants were allowed a square yard each, and were helped during growth in summer with chemical manures (a mixture of kainit and nitrate of soda has given good results), there would be less need for giving large quantities of stable manure, which is always expensive to move, even if it can be bought cheaply in the stable yard. If we are to save expense we must buy our manures in a concentrated form, and I am persuaded the chemist will yet do more for us, but the chemist, like those in other branches, must keep the price down if he wants to do business.

Nut Growing in Kent.—To be profitable Filberts and Nuts must be pruned on the Kentish system. A Nut bush in a Kentish orchard may be described, so far as the shape goes, as a glorified Gooseberry bush. It has wide-spreading branches round a hollow centre, the main branches being full of feathery spray, which is the kind of growth required for bearing Nuts very freely. When the tree has been properly started it does not make gross wood, and the work of pruning is light.

The Nut Walk.—In old-fashioned gardens in the country a shady Nut walk was a pleasant feature, and when fully developed formed a leafy tunnel in a retired part of the garden, frequently a dividing line between the kitchen and flower gardens. The bushes bore Nuts, of course, but that was not the chief end and object of their being. The bushes were seldom pruned. The Nut walk, like some other ancient ideas, is being revived in connexion with other old features in the garden.

Hoeing and Forking.—Surface stirring soon makes its presence felt by the plants. Do the work only in dry weather, and, if the hoe is used, do not let it merely glide over the surface; break it up 1 inch or 2 inches deep. This covering of loose soil will save much labour in watering in hot weather. We need not wait for weeds to be seen before the hoe is used. It is better to anticipate the weeds.

Giving Air to Glass Houses.—This is the gardener's term for ventilating, and most important work it is. Deficient ventilation is the

cause of a good many troubles. On the other hand, injury may be caused by letting in too great a volume at any one time. When the day is warm, and the icy sting has been taken from the atmosphere outside, the warm air can be admitted freely. But we must begin by admitting small quantities; just a mere crack, it may be, along the ridge early in the morning, and adding to it as the temperature rises. The man who attempts to save time by opening the ventilators wide at first will be sure to have trouble.

Good Lilies for Amateurs.—Small gardens as a rule, do not devote much space to the culture of Liliiums, yet they are among the most beautiful flowering plants, and many of them may be grown most successfully in the small and even in the town garden. *Lilium croceum* (the Orange Lily), and *Lilium umbellatum* are two of the easiest to grow; they need only to be planted in ordinary garden soil, putting plenty of sand round about them, and leave them undisturbed. *Lilium Hansonii*, the early-flowering yellow, brown spotted Lily, is easily grown, and so, too, are *L. pyrenaicum*, *L. speciosum* Melpomene, *L. tigrinum* and its varieties, and *L. Martagon*. These need no special care or treatment, and will thrive in ordinary soil if plenty of sand is mixed with it. Others which are well worth including, though perhaps not quite so easily grown, are *L. pomponium*, *L. chalcedonicum* (scarlet), *L. pardalinum*, *L. szovitzianum*, *L. longiflorum*, and *L. elegans*.

Some Valuable Easily-grown Annuals.—Those with small gardens might easily have them very gay with annuals. There is no excuse for bare spaces in the border now that seeds of beautiful annual flowers may be purchased so cheaply, and nothing looks worse than the bare soil showing between the plants; it detracts greatly from the effect of the border. It is most important to give each seedling plenty of room. Far more and finer flowers will be produced by a few plants well grown than by many badly developed. One of the showiest annuals is the Rose Mallow, and big patches of it make a delightful display. The rich pink flowers are produced in profusion if the plants are given plenty of room and a fairly good soil. I have seen masses of it in a garden in August that were the admiration of all who saw them; it grows 3 feet to 4 feet high. The red Flax (*Linum grandiflorum rubrum*) is another annual that everyone ought to grow, for it is of the easiest culture. The rich red flowers are produced on slender stems 15 inches to 18 inches high, and in the month of July make a blaze of colour if sown in big drifts or patches. The seeds need to be sown fairly thickly together, for the plants are so slender that if they are too far apart they fall down and have an untidy appearance. When they are close together they hold each other up, and the flowers are displayed to the best advantage. I think everyone should grow some Virginian Stock, for a gorgeous effect can be produced very quickly if the best varieties in distinct colours are sown.

Japanese Anemones.—If you want to have a good display of white flowers in September you cannot do better than plant some roots of the Japanese Anemone. They will flower profusely next autumn, even if planted now. It quickly becomes established, and few plants give more satisfaction. This Anemone may be had in several varieties now, both pink and white and semi-double. A charming combination may be had by planting Tiger Lily bulbs between the Anemone roots, as they produce their flowers at the same time.

GARDENING OF THE WEEK.

FLOWER GARDEN.

DAHLIAS.—The propagating of these should now be brought to a close, the stock roots divided, and the struck cuttings potted and kept in a moist close heat until well rooted, when they can be slowly hardened off in readiness for planting out at the end of May. The Cactus varieties will, no doubt, form a good portion of the stock, for most of them are very beautiful, and all light and graceful; but it must be admitted that the serious defect of the parent (Juarez) is reproduced in many of the progeny, viz., the marked tendency of the foliage to smother and thus hide the flowers. Great care must be exercised in selecting varieties for garden decoration that throw up their blooms well above the leaves without much disbudbing. Personally, I like the whole class of Cactus Dahlias, and grow them largely; still I grow many of those styled nowadays decorative Dahlias, for they really produce a much brighter effect in the garden than the pointed-petalled varieties, and there is ample variety in height and colour, and all are extremely free bloomers. I enumerate a few typical sorts, all old: Mrs. Hawkins, Annie Harvey, Asia, Constance, Satan (a seedling raised here, the counterpart of Constance in every respect excepting colour, which is very dark, similar to Matchless, and, by the way, raised the same year as that grand variety), Glare of the Garden, Crawley Gem, General Gordon, Salisbury White, Baron Schröder, Cannell's Favourite, Claribel, Grand Duc Alexis, Rev. Lovelace, Miss Webster, and Dawn, to which may be added, although probably still retained in the Cactus section, Gloriosa, Lady Henry Grosvenor, Blanche Keith, and Mayor Hiasa, and you have a score that will make a bold show, and, in addition, prove useful in supplying cut flowers for church and other decorations. Next in merit for garden embellishment come the Pompons, and singles are useful for filling up open spaces in shrubberies. Shows and fancies are, I think, somewhat outside the flower garden proper, and should be relegated to the kitchen garden to be pampered, fed, and prepared for adorning the exhibition table, for which purpose they seem specially adapted. Pot on all cuttings of

BEDDING PLANTS as fast as they become rooted, keeping them in the same temperature until they commence to take possession of the fresh soil, when they can be removed to somewhat cooler quarters, and gradually hardened off. Prick out all seedlings before they become drawn and weak. Hardy annuals of many kinds may now be sown; sow some thinly broadcast among shrubs and strong-growing perennials.

VIOLAS must be planted without delay, and so must Carnations. I presume that a rich border has been previously prepared for the former. If not, it must be done forthwith, for they will surely collapse during the heat and drought of summer unless planted in well-enriched holding soil.

CUTTINGS OF CHOICE SHRUBS inserted in the autumn of 1903 should by now be well rooted, and must be put out in nursery lines, and so should seedlings of Rhododendrons, Azaleas, &c. Leaf-mould and sand being a suitable rooting medium, a little should be placed in the drills to start and encourage the tender rootlets. Maintain cleanliness and neatness throughout. JOHN ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

ORCHIDS.

TEMPERATURES AND SHADING.—The night temperatures in each division may now be advanced. The East Indian house should be about 67°; the Cattleya and Mexican divisions should not fall below 60°, and the intermediate house temperature a few degrees below that of the Cattleya house; the cool house must be kept up to 50°; and, if the weather be mild, a few degrees higher in each department will do no harm, the day temperatures, of course, being advanced in a corresponding rate, allowing several degrees more by fire-heat, or by sun-heat 10° to 15° will be beneficial. With continued mild weather very little fire-heat will be necessary in the Odontoglossum or Masdevallia houses, but the pipes should be made just lukewarm when the temperature is likely to fall below 50°. Ventilate these cool houses freely whenever the outside air is rising above 50°. The bottom ventilators of the Cattleya, Mexican, and intermediate houses should be wide open when the temperature outside is 55°. The East Indian house will require little ventilation at present, but during the middle hours of the day—say, from eleven till three o'clock—when the outer air is warm and still, a little air may be put on through the top ventilators. The blinds on this house should be lowered immediately the sun has sufficient power to raise the temperature 8° or 10°. The same remarks are applicable to the intermediate house. The Cattleya and Mexican houses will not require shading quite so soon, but when the sunshine is bright and there is danger of the leaves being scorched the plants should be shaded. I may add that on none of these houses, which have been whitened over, as recommended in a former calendar, although on some days the sun has been powerful, has it been necessary to use the blinds. The shadings on the cool houses should be let down immediately the sun on bright mornings has raised the temperature to 55° or 60°, and they should be kept down so long as it shines upon the roof. In

THE EAST INDIAN HOUSE, where a great number of different species are cultivated, it is a difficult matter to

provide suitable positions of light and shade for them. *Renanthera coccinea*, *R. Storey*, *Vanda Miss Joaquim*, and *V. hookeriana* will only thrive where they can obtain plenty of bright light, while such species as *Cypripedium*, *Cirrhopetalum*, *Bulbophyllum*, *Phalenopsis*, *Angre-cuma*, and *Aerides* prefer plenty of shade. Others, as the deciduous *Dendrobium*, *Cyrtopodium*, *Mormodes*, *Cataeum*, *Grammatophyllum*, *Schomburgkia*, and the terete-leaved *Vandas* revel in early morning and evening sunshine. All the houses should now be damped down morning and evening, but in some gardens where wide and lofty structures exist it may be found necessary to damp them more frequently. The description of the house in which the plants are grown should always be taken into consideration in calculating how often the house should be damped and the amount of water used at each damping. The

ODONTOGLOSSUM AND MASDEVALLIA HOUSES should be kept fairly moist at all times, but it is good practice to allow the atmosphere of the other divisions to become comparatively dry for a few hours in the middle of the day. This will assist the plants to throw off any excess of moisture, which, if retained, might cause decay. Now that many of the *Odontoglossums*, as *O. crispum* and its many distinct varieties, *O. Hallii*, *O. Pescatorei*, *O. scap-trum*, *O. luteo-purpureum*, *O. hystrix*, and numerous others are finishing up their new pseudo-bulbs and sending up strong flower-spikes they will require copious waterings at the root, and the majority of them will take a good watering every four or five days, but large specimens that have a considerable mass of compost to root in will not require water so frequently. Those that are well rooted in small pots may want water often. Imported *Odontoglossums* should be watered just often enough to keep the material they may be potted in moist, but when they commence to grow and make new roots give more water.

Burford Gardens, Dorking.

W. H. WHITE.

INDOOR GARDEN.

SALVIAS.—For conservatory and greenhouse decoration during winter these plants are not used as much as they deserve. By growing half a dozen or so suitable species and varieties a succession can be kept up for six or eight months. By rooting the varieties of *Salvia splendens* early, they can be had in flower in August. Insert several batches for succession. *S. farinacea*, violet-blue, and *S. involucrata* var. *Bethellii*, of a rosy pink shade, flower about the same time. *S. azurea grandiflora* (syn. *S. Pitcheri*) follows these. The azure blue colour is shown to perfection among white *Chrysanthemums*. The plants should not be pinched too much, as a few well-ripened shoots produce much better flowers than a quantity of weakly growth. *S. leucantha*, lavender and white; *S. rutilans*, the Pine-apple-scented Sage, has scarlet flowers, and is very effective during the dull winter months. *S. Heerli* is one of the best for flowering in early spring. Cuttings of all the above may be inserted any time during this month. They root freely in a propagating frame with bottom heat; failing this place in a hand-light or bell-glass. Much better results are usually obtained if the plants are grown outside for a time in summer. The majority can also be grown from seed. I prefer growing from cuttings, as seedlings vary somewhat. By rooting cuttings from the larger and freer flowering plants a good strain is assured.

HIPPASTRUM (AMARYLLIS).—Attend carefully to the *Hippeastrums* as they pass out of flower. Better results are obtained by growing them plunged to the rim of the pot in beds of tan or cocoanut fibre during the growing season. Tie the foliage carefully to a stake. Syringe frequently to keep down insects. Stir the surface of the soil if the seedlings are planted out in a bed. If kept growing they will flower in two and a-half or three years. After flowering,

LACHENALIAS must not be neglected. Pick off the flower-spikes, place in a light position, and give manure water occasionally. The appearance of the greenhouse and conservatory can often be much improved by growing *Selaginella kraussiana* round the edges of the beds and stages. Underneath the stage, if not too dark, it will also grow freely. Insert cuttings where they are to remain, using a light sandy soil. Many of the seedling *Cyclamen* will by this time be ready for 3½-inch pots. Assist the show and Regal

PELARGONIUMS showing buds with manure water. Pinch out the points of the recently potted zonals for autumn and winter flowering. Keep in a temperature of about 50° for a time. Sow seeds of *Primula verticillata* and *P. floribunda*, *Celsia arcturus* and *C. cretica*, *Campanula pyramidalis*, and *Francoas*. A little pruning will be necessary as the plants of *Cytisus* pass out of flower. Pot on the younger plants when the new growths are half an inch or so in length, using a compost principally composed of fibrous loam. Repotting once in two or three years, or even less, will be sufficient for the larger specimens.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

LATE MUSCAT VINES.—Before the Vines come into flower it must be seen that the borders are moist, so that no water will be required till after the bunches are well set. Delay cutting off the surplus bunches till it can be seen which have set best. A compact, medium-sized bunch is much to be preferred to a large straggling one, which will never become perfect. I believe setting is greatly facilitated if the shoots are allowed to remain above the wires till flowering is over. Any shoots requiring to be stopped should be done so before flowering commences, so that there will be no check while setting is in progress. Pollinate the bunches at midday by lightly passing a

rabbit's tail over them. This must be done with great care, or more harm than good will result. If any difficulty has been hitherto experienced in setting through unfavourable local conditions, the pollen of some free-setting variety (Hamburg for preference) may be used with favourable results. When the berries commence swelling thinning must be attended to. This must be done with care and judgment. Rusting of the berries is often caused through the worker neglecting to keep his scissors constantly wiped. Take care not to thin the shoulders too much. This is a mistake the inexperienced hand is sure to make if he is not warned. If the shape of the bunches is loose, the shoulders may with advantage be looped up with a neat piece of raffia. When thinning is finished the borders of old-established Vines will greatly benefit by a top-dressing of rich farmyard manure, which should be well washed in with tepid water. The night temperature may vary between 65° and 70° according to the weather. Guard against sudden fluctuations when the Vines are in flower. This may have a prejudicial effect on a good "set."

CHERRIES.—The weather up to date has been very favourable to the forcing of Cherries in pots. Very little fire-heat has been required, so that if the trees have been otherwise well treated a good set of fruit will have been secured. A top-dressing of some rich material should be given to established trees, and plenty of stimulants in the way of liquid manure and *Le Fruiter* may be given alternately when watering. Make liberal use of the syringe morning and afternoon, and keep the house moist. Syringe occasionally with a solution of soft soapy water to keep the Cherry fly down, and keep a look-out for the small grub which will be found curled up in the leaves. It will now be safe to increase the temperature if it is desired to hasten the fruit to ripen. This may be done by closing early in the afternoon after syringing. When the fruits are colouring syringing must be discontinued, and the house kept cooler and drier, or the fruits will crack.

EARLY TOMATOES.—To obtain ripe fruits as early as possible, the earliest batch of plants should be stopped when three or four bunches have set, and placed in more heat. Top-dress them with a mixture of loam and horse manure in equal parts, and give plenty of stimulants when watering. Pot on later batches before they become pot-bound. A good compost for the final potting consists of two parts loam, one part well-fermented horse manure, and a good sprinkling of old mortar rubble and wood ashes. Admit plenty of air in favourable weather during the day, and leave the top ventilators open a little at night. A gentle tapping of the trellis will be sufficient to pollinate the flowers now that the weather is more favourable.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

BEETROOT.—The general crop of this much-esteemed root may now be sown with safety. Earlier sowings are apt to run to seed if the plants are checked by cold when in a young state. Beetroot requires a fairly rich soil, but the richness ought to result from former manurings, as in the case of Potatoes. Where fresh manure is applied it tends to produce coarse and forked roots of inferior quality. More desirable are shapely, close-grained juicy roots, about 10 inches or 12 inches long, of a dark crimson colour and sweet flavour. The ground should be deeply dug and well broken up to obtain satisfactory results. Sow the seed in drills 12 inches apart, and moderately thin. If the ground be dry, tread the whole slightly. Pine-apple is a fine old variety, close in texture, colour good, and flavour excellent. Dell's Dark Red I can also recommend, having grown it for a number of years. It is dwarf, rich in colour, both of foliage and root, possessing a pleasing flavour. Sutton's Blood Red is another highly-esteemed Beet, its palatable roots answering well for early autumn salads, &c.

TURNIPS.—A good sowing of Turnips should now be put in. Owing to sudden changes of temperature those sown at earlier dates may not have come to much. Choose a piece of ground not too rich on a border, if such can be spared, for this sowing. Stir up the surface of the soil with a digging fork early in the day, and sow the seed in the afternoon. Draw out the drills 15 inches apart, and nearly 1 inch deep. Sow the seed thinner than for former sowings. Cover with soil, making it firm with the feet; then go over the surface very lightly with a rake, working it parallel with the drills. Snowball and White Milan are varieties which mature early; both are shapely and faultless in flavour. Where yellow-fleshed Turnips are preferred, Orange Jelly will recommend itself, possessing a rich colour, and sweet, mild flavour.

FRENCH BEANS.—In favoured localities these may now be sown on an open border, but in cold or exposed gardens prudent cultivators will defer the sowing seeds of this tender vegetable for ten or twelve days. For those in backward districts earlier supplies may be obtained if seed be sown in small pots or boxes, to be grown in frames and planted out after the dangers arising from late frosts are over. This method I have practised successfully in various gardens where climatic conditions were unfavourable. Excellent varieties are Sutton's Ne Plus Ultra and Canadian Wonder.

CAULIFLOWER AND BROCCOLI.—For successive supplies seeds of both must be sown at this date. Choose a piece of free, open ground, and sow very thinly, so that when the young plants appear there may be space between them for the free circulation of light and air. Under these conditions the plants will attain a sturdy habit, and when lifted from the seed-bed their roots will also carry along with them a good deal of soil, which will greatly benefit them in their permanent quarters. Veitch's Autumn Giant is an excellent variety.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

STOVE & GREENHOUSE.

ERIOSTEMONS.

AUSTRALIAN hard-wooded plants are not cultivated nearly as much as they deserve. Amongst the twenty-five or thirty species of *Eriostemons*, comparatively few are met with under cultivation. *E. myoporoides* is the best known. The flowers are axillary, three to five in a bunch, shorter than the leaves, and pinkish white on opening, changing to pure white. The specimen illustrated has been flowering freely for nearly three months in No. 4 greenhouse, Kew. In Australia the flowering period is said to be October. It is planted out in a bed of peat and sand, is 5 feet in height, and nearly as much through. In nurseries it is usually met with under the name of *E. cuspidatus*. *E. intermedius* and *E. neriifolius* are usually considered to be forms of it. *E. buxifolius*, as the name implies, has leaves resembling the Box. The star-like flowers are pinkish white. It is not so vigorous as the last-named. *E. pulchellus* is also pinkish white. A very pretty garden hybrid. Others worthy of cultivation are *E. affinis* and *E. scaber*. *E. linearifolius* is a densely-branched plant, with somewhat star-shaped white flowers. At Kew it is now known as *Geijera parviflora*. In a cool greenhouse they all last a long time in flower. If required in flower earlier they readily respond to a little heat. Propagation is done by cuttings

in spring, or for the weaker ones grafting on the stronger or *correa alba*. The majority are not so particular about compost as most New Holland plants. A mixture of peat and fibrous loam, or the latter and leaf-mould, with plenty of sharp sand, will suit them. Little pruning is necessary beyond shaping the plants after flowering. All flower in a small state. A. OSBORN.

ERIOSTEMON MYOPOROIDES.

This is a native of Australia, and an exceedingly pretty flowering greenhouse shrub. It belongs to what are popularly termed hard-wooded plants, which include the Heaths, Epacris, and such things, and, like them, cuttings do not strike very readily. The best time of the year to take the cuttings is in April or May, the young growing shoots being selected for the purpose. They should be taken off with a sharp knife just below a joint, and when the bottom leaves are cut off cleanly they are ready for insertion. A length of about 2½ inches is very suitable for the cuttings, which should be selected from good sturdy shoots of medium vigour, the very strong and also the very weak ones being rejected. As it will be necessary to cover the cuttings with a bell-glass, the pots or pans prepared for their reception should be of a size to fit the bell-glass or glasses that are available. The pots must be quite clean, and drained with broken crocks to within 2 inches of the rim, the top layer being small to prevent any of the soil passing through. Peat sifted through a quarter of an inch mesh and silver sand in equal proportions form a suitable compost. It must be pressed down very firmly, and in inserting the cuttings take care that the soil is pressed quite close around them. When a pot is filled with cuttings give a good watering through a fine rose to settle everything in its place, and, after being allowed half an hour or so to drain, cover with a bell-glass, and place if possible in a structure just a little warmer than the greenhouse in which the plants have grown. If this is not available stand them in the warmest part of the greenhouse, as far as possible away from direct draughts, and, of course, they must be kept well shaded.

The principal attention needed will be to water when required and the occasional removal of the bell-glass to wipe off any condensed moisture or to pick off the least signs of decay. As a rule they will root in about a couple of months, and when this takes place, which may be known by the shoots commencing to grow, the bell-

glass should be gradually removed and the freshly-struck cuttings inured to the ordinary atmosphere of the greenhouse. In potting off the cuttings into small pots these last should be clean and well drained. Good peat, with a liberal admixture of silver sand, forms a suitable compost, but as the plants get larger a little loam may be mixed with the potting soil.

ORCHIDS.

ORCHID GROWING FOR BEGINNERS.

(Continued from page 161.)

STAGING.—In a house the size named there will be no central stage, and for a small grower I do not think houses with central stages are advisable. If the house is 11 feet wide, the two stages will be 4 feet wide, a very convenient width. It is difficult to handle plants at the back when the stages are wider. The lower or dummy stage should be 2 feet 8 inches high from the floor level, and be made of 2-inch stout angle iron back and front. The back may be fastened into the wall, and the front may either rest on iron columns or 9-inch brick piers. If slates are used for a bed, rest them upon pieces of 1-inch stout flat iron. Corrugated iron makes a very good substitute for slates, and would come cheaper. This must also be freely supported with pieces of flat iron, say, every 12 inches, otherwise the weight of the plants will cause it to buckle. Presuming the question of the lower stage is settled, the next item is that of material for covering it. Nothing is better than small broken coke from which the dust has been taken; a very convenient size is that which will pass through a 1-inch sieve. Place it to the depth of the angle iron which is carrying the stage. Now comes the important detail of staging for the plants to rest upon. Many use inverted pots simply placed on what I have termed the dummy stage. They answer fairly well, but a much better method, and one that is beneficial to the plants, is to have loose slabs, 1½ inches square, of pitch pine built up to the desired width and height with loose bricks. Nothing is then nailed together. The form and height of the staging can be altered at will to meet the various needs of the plants. It is well not to have the brick bearers too far apart; 4 feet to 5 feet should be the limit. I would advise keeping the staging 6 inches from the front to allow for a row of small Ferns. They relieve the general appearance, and act as a protection to the more valuable plants.

Suspending Orchids.—Many Orchids prefer being suspended, so provision must be made for them. It is well to remember that in a fairly full house the cost of culture per plant is less than in one half full. The place for suspended Orchids should be over the sides of the path, the first or lower row being fixed so that the drip when they are watered just misses the Orchids on the stage; the second one should be 9 inches higher up the roof. Use half-inch round iron, and fasten it by clips screwed into the rafters. When this is used there is no fear of sagging, such as always occurs when wire is used. The Orchids can then be hung all at one level. When they are suspended at various levels the house never looks its best.

Shading.—It is necessary to provide all the houses with movable blinds. For general purposes I prefer the wood or lath blinds; they are more expensive at first, but their durability well repays the extra cost. We find them extremely helpful in maintaining the proper temperatures during cold nights without using so much fire-heat; they make 5° difference to the house, so that is a great consideration. The blinds should be raised about 7 inches from the glass, and carried on wood or iron runners specially fixed for that purpose; then the air can freely pass between the blinds and the glass, and



A USEFUL SPRING-FLOWERING GREENHOUSE PLANT (*ERIOSTEMON MYOPOROIDES*).

will be of material benefit to the plants, especially during very hot weather. The upright glass lantern ventilator may be shaded with milk and flour when the sun gets too strong, and I have never seen any harm accrue from this way of shading, providing movable blinds are provided for the major part of the roof. Some Orchids will do very well during the height of summer with a permanent shading, but it is during the early spring and autumn that permanent shading is so harmful. When that medium is used the grower has either to admit full sun or have no sun at all. W. P. BOUND.

Gasston Park Gardens, Reigate.

(To be continued.)

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

PERENNIALS AND SLUGS (R. M. S.).—It is unfortunate that you cannot adopt the most efficient means of ridding your garden of slugs by looking for them with a lantern late in the evening. It is just then that they are out preying on plants, and can be caught in large numbers. Still further if after the largest have been collected the plants be freely dusted with fresh-slaked lime or soot, smaller ones are killed wholesale, and the dressings do no sort of harm whatever to the plants. Dustings of lime or soot in a damp air or on damp ground soon lose their caustic properties and do the slugs no harm. Even salt, always a dangerous element to use, soon dissolves. We know nothing whatever of the "sheep dip" to which you refer, but whilst doubtless poisonous and very destructive to slugs, it has most likely little effect on them unless strewn over the plants at night when the pests are feeding. Hellebore powder would be as efficacious just then, as that is poisonous and soon kills all that feed upon it.

GRASS DYING IN WINTER (Lady B.).—It is unusual for grass in an open space to die every winter under ordinary conditions. Local conditions may account for the failure. If you cannot get expert opinion we advise that to the dressing which is annually given (and which we presume to be new and sweet soil and fairly rich) should be added 40lb. of the best lawn manure to each cartload of soil. This can be had ready prepared from any of our best seedsmen. A barrowload of recently-slaked lime and the same of gritty sand should also be added to the load of soil, and the whole well mixed together. Now is an excellent time to apply this dressing to the land; it should be applied at the rate of from five to six cartloads to the acre. After this dressing has been spread evenly over the ground lawn grass seeds should be sown thickly over this dressing and well worked into it with a rake or harrow, afterwards rolling the land several times over with a moderately heavy

roller drawn by men in preference to horses. If there is little or no grass on the land $1\frac{1}{2}$ bushels of the best lawn seed should be sown per acre. Dry, calm weather should be selected to carry out the work, as many of the seeds are light and minute and easily blown about. Where sparrows or other birds are numerous they should be scared away until the seeds have started well into growth (which they will do in a short time at this season of the year), or they will soon clear many of the best seeds. After the grass has grown about 1 inch high it should again be rolled (by a lighter roller this time) in order to fasten and consolidate the soil to the roots of the young grass. Mowing should not take place until the grass has attained the height of 8 inches or 10 inches, and on this (first) occasion must be cut with the scythe, and not too close. The next time and onwards it may be cut with the lawn-mower, but not too close for the first two or three months for fear of injuring the crowns of the young grasses. By the end of May, with attention to rolling in showery weather and mowing about every ten days, there should be a thick and beautiful sward of grass, which under ordinary conditions and careful management should go on improving in quality as time goes on, especially if annual light dressings of rich soil are given to it in winter or spring.

STRAWBERRIES DISEASED (F. B. Coventry).—We have no recollection of having seen pot Strawberry plants in such a damaged condition before. The centre of the plants is completely rotten, as if scalded with hot water, and what leaves there are are also badly damaged. One would conclude that the cause of the injury was accidentally subjecting the plants to too high bottom-heat in the plunging material, thereby destroying the roots (we cannot find any live ones), or the giving of too heavy a dose at one time of some highly concentrated artificial manure when watering. This is responsible we know for no end of trouble in this way. The foliage gives one the impression that at one time they had suffered from an attack of mildew, but this would not account for the deplorable condition the plants are evidently in.

VEGETABLES FOR EXHIBITION (Vegetarian).—We wish you had stated the date in July on which you proposed to exhibit vegetables in competition, as between the first and the last weeks at that season a great advance is usually made in growth, but if you can secure them, six fine kinds, when well represented, are: Cauliflowers, very white, solid, and about 6 inches in diameter; Peas, such as Duke of Albany, Edwin Beckett, or other full-podded variety; Tomatoes, the fruit handsome, round, smooth, rich in colour, and of medium size; Potatoes, such as Sir John Llewelyn or Snowdrop. Model, Perfection, Nantes, or Slump-rooted (all very similar) of early Carrots, and either autumn-sown Giant Rocca or Globe Tripoli Onions, a pair of medium-sized handsome Vegetable Marrows or Cucumbers, or Globe Red Beets, or a good dish of Canadian Wonder Dwarf Kidney Beans. It is just then rather early for good Runners, always a strong dish. In any case, we have given you the best.

AMARYLLIS BELLADONNA (Amaryllis).—In order to grow Amaryllis Belladonna well in pots they need liberal treatment. Pot them in two parts good yellow loam to one part dried cow manure, and a sprinkling of rough silver sand. In commencing their culture, at midsummer, when dormant, they must be placed in a sunny spot and watered sparingly. Should they need repotting, the best time is immediately the flowers are over and before the new leaves push up. Then they may be wintered in a frame, taking care to give plenty of air whenever possible, and, if they have not been repotted, a little weak manure water occasionally. They will make sturdy growth, and if the bulbs are sufficiently strong they can reasonably be expected

to flower the following season. They will be much better in your frame than in a sitting-room window, though in summer they may be stood out of doors. In planting out of doors the border should be taken out to a depth of at least 2 feet, a layer of brick rubble for drainage placed in the bottom, and made up with good soil. The bulbs should be planted about 6 inches deep. This Amaryllis flowers, as a rule, in a far more satisfactory manner when planted in a narrow border close to a hot-house. A good bulb is nearly as large as a cricket ball, and such can be reasonably expected to flower well, but, on the other hand, much smaller ones are sometimes equally satisfactory. Your bulbs are undoubtedly too small to flower. The colour of the bulb is nothing to go by, as when first lifted it is almost white, but quickly darkens with exposure. With such small bulbs as yours we should certainly not trouble to grow them in pots, but plant them out in the warmest and sunniest spot you have. Good bulbs that may reasonably be expected to flower well may be obtained at a cheap rate when dormant.

SWEET PEA SEEDS (H. C. Lee).—If the sewerage is well covered, as you say, the plants will derive benefit from it when they are growing freely. You need not have sown the seeds more than an inch deep, but it would not be advisable to disturb them now. The top-dressing of manure is not at all necessary now; you should remove it, as it may prevent the seedlings coming through satisfactorily. They like a fine soil above. The best time to apply the top-dressing of manure is when the plants are growing freely and just beginning to flower. It then gives them just the support they require, whereas when the plants are quite young they do not need it.

SEEDLING AMARYLLIS (Amaryllis).—These will do fairly well under the conditions you name, the principal drawback being the want of a moist, warm atmosphere during the spring months—that is immediately after the flowers are over—for it is then that the vigour of the bulb is built up to enable it to flower another season. Failing a glass structure a sunny window is a very good place for the plants, which, while growing freely, should be liberally watered, occasionally giving a weak mixture of soot and manure water. Under such conditions they should produce good clean leaves, firm in texture, which as the summer advances will begin to turn yellow, when the water supply must be lessened and finally discontinued altogether. If exceedingly dry they may be watered two or three times in the course of the winter. If the bulbs are wintered in your bay window, it is very necessary to see that they are quite safe from frost, and in order to avoid any risks they must not, however dry the soil, be watered during frosty weather. Potted in good loam, leaf-mould, and sand, these Amaryllids will stand for two or three years without being disturbed at the roots.

LICHEN ON LAWN (J. K. Thomas).—Lichen or moss on lawns usually indicates that the grass needs nourishment, or it may happen that the soil needs to be drained. If your soil is a heavy one the latter may be the case, but if it is light and sandy the grass is more likely to be in need of nourishment. As you do not want to interfere with the surface of the lawn, draining is out of the question, for that would mean cutting it up. First give the lawn a good raking; this both stimulates the growth of the grass and will help to remove the moss. Afterwards apply a top-dressing to the lawn of rich soil; this should be prepared beforehand, and lime should be mixed with it at the rate of one load of lime to four of soil. It would be advisable to add some specially prepared lawn manure, which may be had from any good seedsman. In applying this the directions as to quantity supplied with the manure must be followed. You would further improve the soil by sowing seeds in about three weeks after applying the above. These will fill up the lawn and prevent the growth of the moss.

KALMIA LATIFOLIA (L. J.).—Usually treated in the same manner as Rhododendrons and such-like plants in the matter of soil, it certainly does better under those conditions than when planted in loam, which contains lime in excess. It is a mistake, however, to think that all ericaceous plants hate lime, several plants like Rhododendron Chamæcistus prefer it.

GELSEMIUM SEMPERVIRENS (L. J.).—This is a half-hardy evergreen twining plant from the Southern United States. It succeeds well in a cool greenhouse potted in rich loam, producing its fragrant, rich yellow flowers in spring. After it has flowered and made its growth, it may be stood outside during the summer months, housing again before the frosts commence. Lime in small proportions will not affect it.

FORCED LILACS (Name Lost).—Lilacs do not answer very well for forcing two years in succession, so that you ought to have two batches of them, allowing one batch to remain out of doors every alternate season while the other is being forced. When flowering is over you may cut back the growths to within 2 inches of where they started the previous year. It is a good plan to plant them out in a border after flowering, then repot them when next required for forcing. You cannot expect the same plants to give good results when forced without alternate seasons of rest.

TULIPS FAILING (Rev. C. J. Horam).—The bulbs are badly attacked with the Tulip mould. This is always more or less present at the time of planting, but it is not always possible to detect it, and on contact with the soil the development is very rapid. We regret to say that at present there appears to be no way of remedying the evil, and you have taken more than ordinary precautions to ensure success. From enquiries already received, this season there would appear to be a large number of bulbs similarly affected. In your case the disease has permeated to the very core of the bulb.

WOODLICE (G. Roberts).—It is difficult to exterminate these pests as their skins are so hard and impervious to any insecticide, and as they only feed at night one cannot easily catch them. If, as is often the case, they congregate at the bottom of the wall in cracks in the earth, they may be killed wholesale by pouring boiling water along the wall where it touches the soil. Walls on which fruit trees are grown should be kept well pointed, so that there may be no cracks or holes in which the woodlice can hide. Small bundles of dry moss placed near the fruit provide places for them to hide in, where they may be easily found. Bricks, tiles, slates, and boards laid on the ground and left undisturbed for a few days make excellent traps. Woodlice do not like moisture and tidiness, so leave no rubbish about. Toads are their enemies and kill numbers of them.

MARGUERITE CARNATIONS (J. G.).—Seed of the Marguerite Carnation should be sown early in March in a gentle heat, the seedlings pricked off when sufficiently large to handle, and finally potted singly into small pots, a suitable compost for them in this stage being two parts loam to one part leaf-mould and a sprinkling of sand. Then in May plant them out in well-worked, fairly enriched ground; under these conditions they will by the end of the summer have grown into good plants. They may be then lifted and potted, needing pots from 5 inches to 7 inches in diameter according to their vigour. In a gentle heat they will flower more or less throughout the winter. Where a warm greenhouse is at hand they can be potted up to the middle of September, or even later, but as you have only a frame, August will be late enough to do this. As you have no heat your best plan would be to sow the seed in July, wintering them in small pots in your frame, and planting them out as soon as it can be safely done, or, instead of planting them out, shift into pots 5 inches to 6 inches in diameter, and flower them in these. By this treatment they flower much

earlier than when the seed is sown in the spring, and, of course, in July no artificial heat is necessary in raising the seed.

RESTORING ARAUCARIA TO HEALTH (Miss E.).—The Araucaria suffers more from drought than is generally supposed, and we should advise you, unless you are sure it is absolutely dead, to flood it with water once a month for the next three months. The best way to do this is to let a hose run gently on the ground beneath it for about twenty-four hours at a time, making a bank of soil to keep the water in if it is inclined to run away from the tree. In the place of it you could plant Douglas Fir, Abies albertiana, A. grandis or Cupressus lawsoniana, fast-growing evergreens, the first two of which we strongly recommend, or Abies nordmanniana, A. canadensis, Pinus austriaca, Pinus strobus, or Pinus excelsa, slower-growing, but suitable evergreens for the position. Of deciduous trees, the Lime, Elm, Plane, Beech, and Horse Chestnut would be suitable. "Trees and Shrubs for English Gardens" (Newnes, Southampton Street, Strand, London) would suit you, price 12s. 6d.

GROWING ANEMONE ALPINA (L. J.).—This Anemone may be readily increased by means of seed, which should be obtained as fresh as possible. It is best to sow the seed at once after ripening, for preference in a moist but well-drained bed outside, in a compost of peat and loam with plenty of sand mixed with it. Peat, however, is not essential, and good fibrous loam is just as well. Protect the bed from heavy rains, and shade the seedlings for a short time after they germinate. Allow the seedlings to remain in the seed-bed for two years, by which time they will have made nice plants. For their permanent position select an open place, fully exposed, and deeply dig the soil, which may consist of good sandy loam. The best time to plant is in the spring, just as the plants commence growing. Established plants may be taken up at the same time of year and divided for the purpose of increase. A. alpina is indifferent as regards lime.

CATLEYA BULB (B. F. Hull).—The enclosed part of pseudo-bulb is probably that of Cattleya intermedia, which often makes two growths a year, generally flowering from those made between December and May immediately the new pseudo-bulb is made up and before full maturity. It is not an uncommon occurrence for this variety to fail to develop flowers on the autumn-made bulb, even when they are visible. As you say the plant is doing well it will not be advisable to alter the conditions, if, as we believe, it is Cattleya intermedia, and the plant is doing well, it will soon be in flower from the new growth. It is quite impossible to identify accurately unless one knows where it was collected, but the conditions are very much the same for all the long-bulbed section. They require plenty of light and fresh air, yet enough shade to prevent discoloration of the foliage during the brightest part of the day. At this season the minimum temperature should be 60°. During active growth water freely, only giving enough to prevent shrivelling when the plant is dormant.

WHITE FLOWERS FOR CHURCH DECORATION (A.).—There are very few subjects which would be quite satisfactory for your purpose. The Chinese Asters are the most likely to prove useful, the best varieties being the White Comet, White Oatrich Plume, and Lady in White. These should be sown early in June, and if planted in frames with good rich soil they flower well up to quite late in the autumn. The double white Stock All the Year Round, sown at about the same time, would flower in the open until quite late in the autumn, and a succession grown in pots would be useful. They require good soil, firm potting, and careful attention to watering. The white Marguerite Carnations come fairly true from seed, and if sown in May they flower in autumn. We should, however, recommend you to grow some of the early flowering Chrysan-

themums, such as Market White, Parisiana, Godfrey's Pet, and Mme. Desgranges. For earlier the Dahlia Guiding Star always proves very useful, and if we escape frost they flower well into November. There are also other Pompons that are useful, of these White Button may be named.

SHAMROCK (C. P.).—The small-leaved plant No. 1 is that most commonly used in Ireland as Shamrock, and that usually worn on St. Patrick's Day. It is a small, yellow-flowered trefoil, viz., Trifolium minus. The other plant you send, No. 2, is common Wood Sorrel (Oxalis Acetosella), which, along with white Clover, has been used as a substitute for Shamrock. There is a legend that St. Patrick used the Shamrock to illustrate the doctrine of the Trinity to the early Christians in Ireland, but there is no authority for this, and no mention of it is made in his writings. No one really knows what plant St. Patrick used, and all evidence points to the tradition having originated long after his time.

PRUNING BANKSIAN ROSES (Reader).—In the article referred to about pruning the Banksian Roses, the writer undoubtedly intended to caution readers of THE GARDEN against cutting away the twiggy growths at the present time. Your method of cutting back all growths of the previous year to the old stem soon after the plant has blossomed is a good one, and we are not surprised when you say you reap a rich harvest of blossom the next year. Growth resulting from this mode of cutting back are of a twiggy nature, and it is these growths that the writer advises growers not to cut away now. Of course in your favoured situation the Banksian Rose has a better chance of flourishing upon arches in the open ground than it would have in England; in fact, we have never heard of a specimen so growing in the British Isles.

STANDARD MARECHAL NIEL (J. R.).—The failure is undoubtedly due to defective root action. You should have cut back the plant nearly to its base when you planted it out in the greenhouse. Had you done this and then kept the house rather close and applied plenty of atmospheric moisture last summer, there would have been some fine new growths, which would have yielded perfect blossoms this spring. The buds now appearing are merely the result of the warmth of the house; as soon as support was required from the roots this failed, as is proved by the shedding of the leaves. Perhaps the mass of earth needed to be loosened over to release the roots a little, or it may be you planted it out when quite dry, if so all water applied has merely been lost. Your best plan will be to lift and re-plant, and cut back the shoots hard as we suggest. Leave about 2 feet of the old growth. If the plant has life it will soon send out new shoots, two, or at most three, of which should be selected, and the others rubbed off. By the autumn these three would probably reach a length of 8 feet to 10 feet.

BISULPHIDE OF CARBON (Eastcote).—This chemical is in no sense a manure, but is, when properly used, a powerful insecticide. We give you the method of using it described by Mr. Cousens in his excellent little book "Chemistry of the Garden": "Carbon bisulphide is an excellent but an expensive remedy for such insects as the phylloxera, ants, eelworms, and wireworms. It should be carefully handled, as it is highly inflammable. No light or surface of heated metal must be allowed to come into contact with the vapour or a dangerous conflagration may result. Dig small holes 8 inches to 1 foot deep in the infected soil at intervals of 2 feet apart, and pour 2oz. of the liquid bisulphide down each hole. Carefully close the holes with soil. The vapour permeates the ground, and destroys all insect or parasitic life." Naturally, with so dangerous an article we should be careful in employing it near the roots of anything. Still, you will do well to try it as advised, and thus test results.

PALM LEAVES INJURED (*Subscriber*).—It is not uncommon to find the foliage of the *Latania borbonica* disfigured in the way mentioned by our correspondent; and in every case where we have noticed the injury the damage has been caused by very common glass, or by a square or two of bad glass being introduced into the roof just above the plant. The great fan-shaped leaves of this Palm expose a large surface of tender foliage to the sun's rays, hence it is more liable to be scorched than most other Palms. We would advise our correspondent to shade the glass over his Palms slightly early in the year, and to shade rather heavily throughout the summer, when we anticipate he will not have a recurrence of this trouble. The Palm may be repotted now with advantage, taking away the bottom crocks and a few of the bottom roots, in order that the plant may be placed deep enough in the pot. Good loam, not too heavy, three parts, peat one part, with a liberal sprinkling of silver sand mixed with them, forms an excellent soil for potting. Palms delight in shade in summer, and succeed very well even if grown rather thickly together.

PYRUS JAPONICA (*J. Simpson*).—This tree should be pruned on the spur system; that is to say, you should encourage the formation of short growths on the main branches, for it is upon these that the flowers are largely produced. You will never get many flowers from crowded weakly shoots. From the description of your soil and situation we should advise you to manure the soil and get the tree to make some good growths; allow plenty of room between the shoots, then spurs will form naturally upon them. You can assist their formation by pinching the growths in summer. Mulch the ground with manure in summer time. You could hardly plant anything better on your low wall than *Crataegus Pyracantha*, that bears rich orange red berries throughout the winter. The Rose Gloire de Dijon ought to grow there. If you were to give your light, dry soil well mulched during summer your plants would probably grow better.

PLANTING SMALL GARDEN (*Bramley*).—Your garden is too small to get a really good effect, but we think you would not do better than to make a 3 feet wide border, and to have the path 1 foot wide. Plant it with mixed herbaceous plants. Have an edging of Pinks. At the back of the border plant *Helianthus* (Sunflower) Miss Mellish (small flowered), Sweet Peas King Edward (crimson), Dorothy Eckford (white), Captain of the Blues (blue), Miss Willmott (orange pink), Hollyhock, Gladiolus, and Tiger Lily. For the middle of the border you might have the Orange Lily (*Lilium croceum*), *Campanula persicifolia*, Japanese Anemone, *Lobelia cardinalis*, Phlox, and German Irises. At the front sow *Linum grandiflorum rubrum* (red Flax, very beautiful), Swan River Daisy, Clarkia, and plant Violas.

PERENNIALS FOR BORDERS, &c. (*Novice*).—You could plant all the flowering plants now, but the fruit tree planting should be deferred till October. You will find the following among the more showy perennials, and to these you could add Lilies and Carnations, and Gladioli if you desired to make a good display. Good perennials are Gaillardias, crimson and gold; Trollius, rich yellow; Aster amellus, mauve; single and double Pyrethrums in shades of rose, pink, carmine, yellow, flesh, &c.; Delphiniums in blue and violet; Heleniums, like a small Sunflower; Red Hot Poker, a very showy plant; *Stenactis speciosa*, bluish mauve, very free; *Coreopsis lanceolata*, yellow; single and double Sunflowers; *Helianthus multiflorus*, *Campanula carpatia*, C. c. alba, C. Moerheimi, blue and white; Iris germanica in six kinds; *Chrysanthemum maximum*, white; *Anemone japonica* in pink and white; *Achillea ptarmica plena*, white; six Michaelmas Daisies, Columbines, Day Lilies, Phloxes in white, rose, and scarlet, with Pentstemons, &c., would

make quite a display. You could also, quite early in May, obtain a dozen rooted plants of early-flowering *Chrysanthemums* in various colours, all of which would flower quite well in September and later. For the arches you cannot do better than plant climbing Roses and Clematises, one plant of each kind on each side, or four in all for each arch. For example, you can have Crimson Rambler Rose and a white Clematis Fairy Queen on one arch, Rose William Allen Richardson and Clematis Jackmani on another, and Rose Gloire de Dijon and Clematis Henryi on a third. Small-growing climbers for walls should include golden and silver Ivies, *Vitis heterophylla*, *Crataegus Lelandi*, and Roses, and you could also plant seeds of Sweet Peas at the foot of the wall here and there in clumps.

ROOF FOR SUMMER-HOUSE (*L. J.*).—A thick roof of Heather is the very best material for a summer-house which is to be semi-rustic and not too artificial in appearance. Failing Heather, then use long, well-dried Rushes. If something of a more solid kind be preferred, cover with red tiles of any ornamental pattern, as these will soon become toned to suit the surroundings. Probably you may plant climbers, Ivies, Roses, Clematises, Honeysuckles, or similar things about the summer-house, which may ultimately cover the roof. In that case, so long as the covering now put on be enduring and water-tight, what it was composed of would seem of little consequence. In employing the trunks of Sycamore and Chestnut to construct the sides of the house, you may find it wise to remove the bark from these trunks first, as otherwise it may in time shell off, and thus look unsightly. Shelling bark also becomes free habitations for all sorts of insects, especially woodlice and earwigs.

CYMBIDIUM CULTURE (*B. F., Hull*).—These Orchids are of very easy culture, with the exception of a few varieties seldom met with outside large Orchid collections. Most probably the one you have is either *Cymbidium traceyanum* or *C. giganteum*, judging by the season of growth, and if your old bulbs are not larger than Walnuts your specimen is not large enough or strong enough to flower. If the plant is in a small pot we should advise potting it on at once, when stronger growth would be produced. The requirements of *Cymbidiums* are simple. They love a cool humid house, such as the cool end of a fernery, where the minimum temperature does not fall below 45°. They must be potted in a good retentive compost, such as one made up of three-fifths fibrous loam and two-fifths leaf-soil, mixed well together with a liberal sprinkling of small crocks about the size of Peas and some coarse sand. Water carefully after potting till the new roots have ramified among the new compost; afterwards water freely till the completion of growth. At no season must they remain for any length of time in a dry state, but after growth is completed only water when the compost has become fairly dry. If one has a very strong plant that has refused to flower for two or three years, a good drying to the point of causing a slight shrivelling of the pseudo-bulbs will often make it flower, but this treatment is not often necessary.

TROPEOLUM SPECIOSUM (*A. J. Godden*).—This plant is perfectly hardy, so you may plant them out now. In Scotland it clothes cottages and garden walls with luxuriant leafage and brilliant flowers. It was introduced from South America many years ago, but has not been grown with much success in England. Generally speaking, you must choose the position for this plant very carefully, otherwise you will meet with no success. It prefers a deep, rich, and fairly moist soil. It loves to climb over a hedge, and should be planted on the north side of it. It seems to dislike hot, dry situations. It is a most uncertain plant, sometimes even after the greatest pains have been taken with soil and position failures have occurred, while again a haphazard

planting has proved most successful. You should make the soil for it light and friable by adding leaf-mould and sand. A mulch of manure during summer is advised. You should endeavour to protect the roots by planting among Ferns or shrubs. In a west aspect it has been found to grow well.

NAMES OF FRUIT.—*H. P. C.*—Kedleston Pippin Apple. —A single Apple was received without name.—The fruit is Paroquet. We hope the sender can identify this answer.

NAMES OF PLANTS.—*Miss V. F.*—*Narcissus odoratus rugulosus*.—*G. O.*—Daffodil Orange Phenix. —*Constant Reader*.—The blue Anemone is *A. blanda*, the other is *A. nemorosa rosea*. The Iris is now known as *I. japonica*, and was formerly known as *I. fimbriata*. Please number your specimens in future.—*E. C.*—The reddish purple Violet is Admiral Avellan, and the other Princess of Wales.—*Miss M.*—1, *Rhododendron lepidotum*; 2, *Rhododendron dahuricum*.—*H. P. C.*—*Elaeagnus pungens aureo-picta*.—*H. Elliott*.—*Hippeastrum* (*Anaryllis*) *Johnsoni*. Yours must be a very fine specimen, which well shows that the treatment given it is correct.—*E. S. B.*—1, *Forsythia suspensa*; 2, the flower was quite shrivelled when received; 3, *Sedum dendroideum variegatum*, often known as *Sedum assoideum variegatum*.—*Kirroughtree*.—An Oxalis, but the flowers were so much shrivelled that it was quite impossible to tell their colour, but if they are of a mauve-pink tint the plant is in all probability *Oxalis articulata*, as, compared with living specimens at Kew, the leaves are identical. There are, however, about 250 species, so that perfect material is necessary for identification. The genus *Oxalis* belongs to the natural order Geraniaceae. A slight description of the flowers which shrivel so quickly would have been a great help.—*C. Oxford*.—1, The Czar; 2, probably *Victoria Regina*; 3, Admiral Avellan; 4, Marie Louise. The other flower is *Lathyrus cyaneus*.

SHORT REPLIES.—*Amaryllis*.—*Crinum capense* is hardy in many parts of England. Good bulbs of *Crinum capense* will need pots 6 inches in diameter, a very suitable soil being two parts good loam to one part leaf-mould, and somewhat less than a part of sand. If obtained early in the new year, potted, and placed in the frame, these *Crinums* will, if given a little water occasionally, soon root, and with the return of spring push up their leaves. After this they may be placed out of doors, where they will flower during the summer. They can be readily wintered in your frame, and will at that time not require any water. *Vallota purpurea* will need a good light window during the winter, as it begins to grow in September and continues throughout the winter and spring months. For this reason it must be properly watered during the entire period. It takes a partial rest in July, but even then should not be kept too dry. The same soil as that recommended for the *Crinum* will suit this, and do not repot as long as the roots are in a healthy condition.—*McC.*—The name of the fungus is *Peziza vesiculosa*, not uncommon on old dung heaps and manured ground. It will soon pass away without being injurious to any crops. It is not an edible species, although it has been eaten without fatal results by a few fungus fanatics.—*L. S.*—The frost has certainly affected your *Veronica* in a very singular manner, and we have never before seen an example quite like the enclosed. The explanation, we think, is that, encouraged by comparatively mild weather, the sap was very active, and the tissues being full, a sudden frost caused their disruption, and consequent injury to the plant.—*J. E. W.*—No. 1 is a very poor form of *Dendrobium* × *Ainsworthi*, the hybrid between *D. nobile* × *D. heterocarpum*; No. 2 is an Apollo var. (*D. nobile pulcherrimum* × *splendissimum grandiflorum*); No. 3 is *D. × lechianum* and rather poor. In *Dendrobium* seedlings there is always the chance of great variety and reversion. We have seen this season out of the same seed-pod extremely fine forms of *Dendrobium* × *Apollo*, and, as far as the eye can judge, true *D. nobile*. We do not consider either variety sent worthy of any distinctive name. There are now such extremely fine forms, some being nearly 5 inches across, of the same types as those sent.

SOCIETIES.

NATIONAL AMATEUR GARDENERS' ASSOCIATION.

The usual monthly meeting of this society was held at Winchester House, Old Broad Street, London, E.C., on Tuesday, the 4th inst., at seven o'clock, when the president (Mr. T. W. Sanders) lectured on "Gardens, Gardeners, and Gardening." The lecture was illustrated by lantern views, which embraced a great diversity of subjects, each one displaying how to make our gardens beautiful, no matter what their size or situation may be. The lecturer's remarks were specially devoted to assisting those whose gardens are of limited extent and situated in the suburbs and around large towns. Many of the pictures showed what could be done by careful forethought and a wise system of planting, so that bare spaces and fences, ugly corners, and unsightly portions of the garden might be covered up and made beautiful with climbers and other subjects. The advantages of massing and grouping different subjects was also well exemplified in many of the pictures so that members could appreciate the value of the different subjects when massed for effect. That the garden beautiful might be better appreciated by those present, the lecturer had a few slides put on as a contrast, in which

mistakes in the arrangement and planting of various gardens were clearly defined, and these mistakes were so frequently met with in the gardens of those who profess to take an interest in them, but who, through want of knowledge, seem to mislead the mark. At the conclusion of the lengthy and instructive lecture, the chairman (Mr. D. B. Crane) proposed a vote of thanks, which was carried unanimously.

In the big hall at Winchester House an exhibition was got together. Spring flowers were seen in great beauty, Daffodils, Hyacinths, Tulips, and many other subjects were displayed freely, and each was of a high order of merit. Special interest was manifested in several classes open to lady members, in which hand-baskets were well set up. It is astonishing the strides that have been made in this department through the agency of this association, the exhibits on this occasion being as fine as we have ever seen them. Altogether those responsible for the welfare of this important body of amateur horticulturists have every reason to be pleased with the progress the association is making. It cannot be denied that its members are increasing gradually, and the work carried on through the agency of lectures and the exhibitions is now beginning to tell. The subscription is only 5s. per annum, and for this small outlay twelve meetings are provided, and an exhibition on the occasion of each one. In addition, there are excursions to various gardens of interest during the summer months, as well as other minor advantages, of which particulars can be obtained of the hon. secretary, Mr. Richard Cordwell, Medusa Road, Catford, London, S.E.

TRURO DAFFODIL SHOW.

It may be stated, without fear of contradiction, that every year since its inception the show of the Cornwall Daffodil and Spring Flower Society has shown marked improvement, and this was conspicuously manifest in the exhibition opened in the Market Hall, Truro, on the 4th inst. The new seedling Narcissi exhibited in the classes for Magni-coronati, Medio-coronati, and Parvi-coronati, not yet in commerce, and the number of these that appeared in the first prize stand in Class I. were a revelation to Daffodil-lovers. Brilliant trusses of Rhododendron blooms were, as usual, a feature at Truro. Violets were splendidly shown, and the large class for hard-wood flowering shrubs was so good that all the four exhibitors were awarded prizes. All the arrangements were admirably carried out by the efficient hon. secretary, the Hon. John Boscawen, and ample space was allotted both to the exhibits and to the public, who congregated in crowds during the afternoon to admire the flowers and to listen to the music of the Royal Marine Band. During the first few years of the show Mr. Dorrien Smith, in order to enhance the attractions of the exhibition, was accustomed to send from Treco Abbey Gardens, Isles of Scilly, a collection of about one hundred varieties of Narcissi, but of late, owing to the increasing excellence of the Cornish exhibits, he has deemed this unnecessary, and has discontinued the practice, so that no Scilly flowers were on view at this year's show. We give extracts from the

PRIZE LIST.

The best collection of not less than thirty or more than forty varieties of Daffodils: First, Mr. J. C. Williams, with White Lady, King Alfred, Armorer, Incognita, White Queen, Monarch, and twenty-eight unnamed seedlings, many of which were of a high order of merit; second, Lady Margaret Boscawen; third, Mr. E. H. Williams.

In the next eight classes the price of bulbs was restricted to 10s. Six distinct varieties, Magni coronati: First, Mrs. W. Tyacke. Six distinct Medio-coronati: First, Mr. E. H. Williams. Six distinct Parvi-coronati: First, Mrs. W. Tyacke. Six Polyanthus Narcissus: First, Mr. Johnathan Rasbleich. Fifteen distinct varieties, any sections: First, Mrs. W. Tyacke. Finest bloom Magni-coronati: First, Miss Clarice Vivian, with Victoria. Finest bloom Medio-coronati: First, Miss Mabel Williams, with White Lady. Finest bloom Parvi-coronati: First, Mr. E. H. Williams, with Cassandra. In the following classes the price of bulbs was unrestricted. Six Magni-coronati: First, Mr. P. D. Williams, with a splendid stand containing Maximus (grand), Diogenes (a new seedling of fine form with white perianth and pale sulphur trumpet), King Alfred (magnificent), Mme. de Graaff, Queen of Spain, and Waxwing. Six Medio-coronati: First, Mr. P. D. Williams, with another excellent stand.

Three Leedsii: First, Mr. P. D. Williams, with Tern, Seagull, and White Queen. Six Parvi-coronati: First, Mr. P. D. Williams. Three doubles: First, Mrs. Nowell-Usticke. Finest bloom of Magni-coronati in commerce: First, Rev. A. T. Boscawen, with King Alfred.

Finest bloom of Medio-coronati in commerce: First, Mr. P. D. Williams, with Homespun.

Finest bloom of Parvi-coronati in commerce: First, Mr. P. D. Williams. All three prizes in this class were won with Horace, this proving it to be the finest of all the poeticus section.

Finest bloom of Magni-coronati not in commerce, eighteen entries: First, Mr. P. D. Williams, with Averil, a seedling from Victoria, with white perianth and sulphur trumpet.

Finest bloom of Medio-coronati not in commerce, twenty-three entries: First, Mr. P. D. Williams, with Peregrine, a flower of excellent form, white perianth with cup of palest yellow.

Finest bloom of Parvi-coronati not in commerce: First, Mr. J. C. Williams, with a good unnamed poeticus with rounded perianth and scarlet crown; second, Mr. J. C. Williams, with another unnamed poeticus with spreading yellow, scarlet-edged crown; third, Mr. J. C. Williams, with White Star, the most beautiful flower in the show,

with white perianth over 4 inches across, and flat yellow crown $1\frac{1}{2}$ inches in diameter.

SPRING FLOWERS.

Three bunches of Anemones: First, Lady Margaret Boscawen. Three bunches Anemone fulgens: First, Miss Alice Williams. Three varieties Polyanthus: First, Mr. P. D. Williams. Three varieties Primrose: First, Mrs. E. H. Williams. Three varieties double Primrose: First, Mr. P. D. Williams. Collection of hardy herbaceous flowers: First, Mr. P. D. Williams.

Best group of Rhododendron blooms: First, Mr. D. H. Shilson, with a fine collection containing Duke of Cornwall, grande, extimium, Aucklandi, barbatum, Thomsoni, and many others. Six trusses of outdoor Rhododendrons: First, Mr. D. H. Shilson. Six trusses of greenhouse Rhododendrons: First, Mr. D. H. Shilson. Finest truss of Sikkim Rhododendron: First, Mr. R. Fox, with Glory of Penjerick.

Twenty varieties of hard-wood, outdoor flowering shrubs: First, Sir Arthur Pendarves Vivian.

Six varieties of hard-wood, outdoor flowering shrubs: First, Mr. Howard Fox, with Cestrum fasciculatum, the rare Viburnum rugosum, Magnolia soulangeana, Acacia longifolia, Skimmia japonica, and Melianthus major.

Non-competitive exhibits: Colonel Tremayne sent from Carlew, not for competition, a collection of flowering shrubs and two plants of the splendid Rhododendron Nuttallii in full bloom. Mr. P. J. Kendall showed six vases of King Alfred Daffodil, and Mr. C. Dawson, Rosemoran, Guilva, a dozen perfect blooms of Horace. The Primrose Evelyn Arkwright, exhibited by the Hon. John Boscawen, was given an award of merit, as was Magnolia Kobus, a Japanese species, with some white, scented flowers 4 inches across, and which grows to a height of from 60 feet to 70 feet in its native land, shown by Messrs. Robert Veitch and Son. Among the nurserymen were the Devon Rosery, Torquay, who staged a fine show of pot Roses in full bloom, also some hundreds of cut blossoms and other plants. Messrs. Wallace and Co., Colchester, exhibited hardy plants in great variety.

Messrs. R. Veitch and Son, Exeter, staged a large collection of flowering shrubs and trees. Messrs. Barr and Sons showed a fine collection of Narcissi, amongst which were noted such rare varieties as Peter Barr, Cassandra, Lucifer, Cygnet, Admiral Makaroff, Vivid, Cleopatra, Loveliness, Lord Roberts, and Agnes Harvey, a twin-flowered form with white drooping blossoms. Mr. G. Reuthe, Keston, contributed an interesting lot of hardy flowers. To all the foregoing nurserymen silver medals were awarded. The judges were Messrs. A. P. Milner, A. M. Wilson, S. W. Fitzherbert, and R. Wallace.

LIVERPOOL HORTICULTURAL ASSOCIATION.

The nineteenth spring show of the above society was held on the 29th and 30th ult. in St. George's Hall under most favourable auspices. The entries were above the average. The huge specimen Palms and those in smaller pots with the fine Ferns relieved the rich colours of the Azaleas, Rhododendrons, bulbous flowers, &c. In the open classes Mr. J. Bracegirdle, gardener to Alderman W. H. Watts, was first with a tastefully arranged group 12 feet by 10 feet; Mr. G. Osborne, gardener to Dr. J. A. Cooke, was second. For ten pots of hardy herbaceous or bulbous plants Mr. G. Eaton, gardener to W. Tod, Esq., won with excellent specimens. For the most tastefully arranged dinner-table Mr. J. Stoney, gardener to F. H. Gossage, Esq., was first out of six competitors with a pleasing design of W. A. Richardson Roses.

AMATEURS.

For twelve pots of bulbous plants in flower (prizes presented by Messrs. R. P. Ker and Sons) Mr. R. T. Bushell, gardener to L. Noblett, Esq., was first. For twelve Hyacinths, distinct, Mr. E. R. Finch, gardener to W. J. Lockett, Esq., was first. For six pots Mr. R. T. Bushell won. For twelve pots of single Tulips (first prize presented by Messrs. Hogg and Robertson) Mr. J. Stoney was first. For six pots Mr. H. Holford was first. Of twenty-five distinct varieties of cut Daffodils (first prize, silver flower vase, presented by Messrs. Barr and Sons) Mr. J. Stoney had the best.

For three greenhouse Azaleas Mr. B. Cromwell, gardener to T. S. Timmis, Esq., was first. The best basket of cut flowers (prizes presented by Mr. Harold Sadler) was shown by Mr. E. Wharton, gardener to J. Findlay, Esq. For three hardy forced plants Mr. T. Hitchman, gardener to A. Earle, Esq., was first. For four exotic Ferns Mr. J. Bracegirdle won first prize. The best four hardy Rhododendrons were from Mr. B. Cromwell. For three Palms or Cycads Mr. B. Cromwell was first with magnificent specimens.

NON-COMPETITIVE EXHIBITS.

An unusually large number of groups was staged by the trade, which did much to increase the attractiveness of the exhibition. Certificates of merit were given to the following: Messrs. Charlesworth and Co., Bradford, for a choice collection of Orchids; Sir Josslyn Goore-Booth, Bart., Sligo, for a fine lot of cut Daffodils; Mr. H. Middlehurst, Liverpool, for a group of forced Laburnums, Lilacs, Tulips, &c.; Messrs. R. P. Ker and Sons, Cressington Nurseries, for a miscellaneous collection of flowering plants; Messrs. John Cowan and Co. for a group of Orchids; Messrs. Fishlock Bros., Liverpool, for wreaths, bouquets, &c.; Mr. C. Young, West Derby, for a small collection of cut Carnations; Mr. W. Rowlands, Childwall Nurseries, Liverpool, for Daffodils; Mr. W. A. Watts, St. Asaph, for cut Primroses of excellent types; Messrs. Hogg and Robertson, Dublin, for an extensive collection of Daffodils; the Misses Hopkins, Knutsford, for Daisies, Primroses, and alpine. Messrs. T. Davies and Co. for

Lilacs, Azaleas, Tulips, Lily of the Valley, &c.; and Mr. E. Bache for a group of seedling Dendrobiums in fine varieties. Mr. Harold Sadler efficiently carried out his secretarial duties.

REDHILL AND REIGATE GARDENERS' ASSOCIATION

The fortnightly meeting of the above society was held on the 28th ult., Mr. W. P. Bound in the chair. Mr. W. Seaman of Margery Hall Gardens read a paper on "The Cultivation of the Dahlia." He advised placing the old plants in a fairly strong heat to induce them to give cuttings for propagation, about the end of February being considered a suitable time to make a start. The first cuttings which are thrown up by the shoots should be pinched out, as they are generally hollow in the stem and always strike badly. The subsequent shoots are more solid in the stem, and if taken when about 3 inches long there should be little difficulty in striking them. The cuttings should be potted into single pots, gradually hardened off, and planted out in May. The preparation of the ground was fully gone into by Mr. Seaman. A discussion followed the meeting, which brought out many useful points.

HORTICULTURAL SOCIETIES' SCHEDULES.

ANCIENT SOCIETY OF YORK FLORISTS.—The first show of this society was held on the 12th inst. The second will be held on May 24, the third on July 19, and a Dahlia show on September 6. Full particulars may be had from the secretary, Mr. George F. W. Oman, 38, Petergate, York.

FILTON HORTICULTURAL SOCIETY.—The first annual show of this society will be held in the Corporation Field, Filton, Bristol, on Thursday and Friday, July 20 and 21. The honorary secretaries are Messrs. J. G. Cook and John Barry.

PANGBOURNE AND DISTRICT GARDENERS' ASSOCIATION.

The fortnightly meeting of this association was held at the Riverside Club, on Friday the 31st ult., the president, Mr. L. Sutton, presiding. There was a large attendance of members. The secretary having read the minutes of the last meeting, which were adopted, the president then congratulated the association on the good work that was being done in Pangbourne and district. Mr. Sutton then called on Mr. F. Tugwood for his paper on "Small Fruit," which included the Currant, Gooseberry, Loganberry, and also Raspberries and Strawberries. The lecturer gave an interesting account of the methods and the necessary details for the culture of these well-known fruits. The paper was chiefly for the benefit of cottagers and allotment holders, and gave rise to a good discussion. A vote of thanks was given to Mr. Tugwood for his paper, and also to Mr. Leonard Sutton.

SCOTTISH HORTICULTURAL ASSOCIATION.

THIS flourishing association has just issued its Transactions for Session 1904, with the twenty-eighth annual report, and a list of its members. The report, already briefly mentioned in THE GARDEN, is of a satisfactory character, the membership continuing to increase rapidly. The membership at the end of 1904 was 1,394, an increase of 107, after deduction of losses by death and otherwise. The papers read at the monthly meetings form interesting and valuable matter for those unable to be present at the meetings. They comprise such subjects as "Some Experiences in Ornamental Shrub and Tree Planting and Growing," by Mr. James Whytock, full of valuable instruction and pleasant reminiscences; a deeply interesting paper on "Scottish Plant Names," by Mr. R. P. Brotherton; "Hardy Fruit Culture and its Bearing on the Depopulation of Rural Districts," by Mr. James Williamson; "Beautiful Flowering Trees and Shrubs," by Mr. George Gordon; "Scottish Florists," a racy paper by Mr. James Grieve, himself a veteran florist; "Herbaceous Calceolarias," by Mr. C. Comfort, a thoroughly practical production; as also is that of Mr. W. Smith, Oxford, on "Stone Fruit on Walls." Following these are "The Arrangement of Cut Flowers in House Decoration"; Mr. T. A. Scalett's paper on "Potatoes"; Mr. W. Lamont's paper on "Chrysanthemums"; and Mr. F. W. E. Shrivell's paper on the "Manuring of Bush Fruits and Insect Pests," all being of a valuable character.

BATH GARDENERS' SOCIETY.

The fortnightly meeting was held on the 27th ult., when Mr. T. Parrott presided over a very large attendance. There was a very fine display of plants, flowers, and vegetables, and Mr. Sparey read a practical paper on "The Culture of Vegetables," followed by an instructive discussion. Mr. Sparey also exhibited a splendid collection of vegetables in nineteen varieties which were a credit to the lecturer. A hearty vote of thanks was accorded to Mr. Sparey for his excellent paper. The chairman announced that the president, Mr. C. T. Foxcroft, had forwarded a donation of five guineas for the forthcoming Chrysanthemum show, no less a sum than £25 having been given, and several additional amounts were promised that evening towards the fund. It was decided to accept the kind invitation of Messrs. Sutton and Sons to visit their nurseries at Reading in July next. The chairman congratulated the society on their success and the steady progress they were making. He said they would be the largest gardeners' society. With the election of an honorary and an ordinary member the roll was brought to 150.—O. G. McLAREN.

ROYAL HORTICULTURAL SOCIETY.

THE finest show of the season was held in the Horticultural Hall last Tuesday. Narcissi and other spring-flowering plants and shrubs, both hardy and tender, were largely exhibited. No fruit was shown.

ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, F. J. Thorne, W. A. Binney, R. Brooman White, de B. Crawshaw, Norman C. Cookson, James Douglas, Francis Wellesley, Richard G. Thwaites, H. G. Morris, W. H. White, H. T. Pitt, A. A. McBean, J. Wilson Potter, G. F. Moore, W. B. xul, W. H. Young, Walter Cobb, Henry Little, H. Billantine, Harry J. Veitch, H. A. Tracey, J. Charlesworth, and F. W. Ashton.

In the group of Orchids from Messrs. Charlesworth and Co., Beaton, Bradford, the apricot-coloured *Lælio-Cattleya Charlesworthii* made a bright display among numerous racemes of *Odontoglossum crispum*. *Brasso-Cattleya Mossiae digbyana*, with large rose-coloured flowers, and the white, green-throated hybrid *Queen Alexandra* were conspicuous. *Lælio-Cattleya welliana*, with pale lilac sepals and petals, rich purple lip, and yellow throat, the lemon yellow *L.-C. Mercia*, *Cattleya Empress*, *Frederick*, rich rose with handsome purple gold-lined lip, and various *Dendrobiums* and *Odontoglossums* helped to make a noteworthy exhibit. Silver Flora medal.

Messrs. Sander and Sons, St. Albans, exhibited a group of Orchids that contained many choice plants. *Cattleya Schroderae* var. *ochracea*, C. S. var. *splendidiissima*, and C. S. alba were conspicuously displayed. *Miltonia blanda*, *Lælio-Cattleya blecheyensis* (a hybrid between *Lælia tenebrosa* and C. Warszewiczii), *Phaius Phoebe*, *Maxillaria sanderiana*, *Dendrobium capillipes* (with rich yellow flowers with golden lip), and some very fine *Odontoglossums* were also included. Awards of merit were given to several of the latter, and also to *Zygopetalum discolor atro-cerulea*. Silver Flora medal.

The group of Orchids from H. S. Goodson, Esq., West Hill, Putney (gardener, Mr. G. E. Day), comprised *Cattleya Schroderae* in several varieties, *Cyhis bracteosa*, *Phaius Norman*, *Oncidium concolor*, *Lycaste Skinneri*, *Cypripediums*, and others. Silver Flora medal.

Sir Trevor Lawrence, Bart., Putford, Dorking (gardener, Mr. W. H. White), showed a small group that contained some most interesting and beautiful Orchids. The most notable plant was *Odontoglossum ramosissimum* Burford variety, which obtained a first-class certificate and is described elsewhere. *Oncidium concolor* was finely flowered; so, too, was *Lælia harpophylla*. *Epidendrum obrienianum*, *E. erectum* (bright purple), *E. Ellisii*, *E. Schomburgkii* (apricot-red), *Leptotes bicolor*, *Lælio-Cattleya Myra superba*, and *Epi-Cattleya Gaskill-parkinsonia*, with recurved pinkish sepals, cream white petals, and open, almost flat, lip, cream, with yellow in the centre, were other good plants included. Vote of thanks.

Messrs. Hugh Low and Co., Enfield, exhibited a small group of Orchids, among which were *Cattleya Lawrenceana*, C. Mendeli, C. *Schöderae perfecta*, C. *lawrenceana*, C. *Trianae*, *Odontoglossum crispum* in variety, *Dendrobium Falconeri giganteum*, *Cypripedium Olvia*, C. *lawrenceanum* *hyeanum*, C. *calosum*, C. *Prewettii*, *Oncidium barbatum*, *Angraecum citratum*, *Trichopilia suavis*, *Epidendrum Endrosio-Wallisii*, *Eria obesa*, and others. Silver Banksian medal.

De Burri Crawshaw, Esq., Rosefield, Sevenoaks (gardener, Mr. W. J. Stables), exhibited *Odontoglossum crispum* *crawshawianum* and another hybrid *Odontoglossum*.

Cattleya guttata Prinzel Westfield var., beautifully spotted with purple upon a bluish ground and with a purple lip, was shown by F. Wellesley, Esq., Westfield, Woking (gardener, Mr. Hopkins).

NEW ORCHIDS.

Dendrobium fimbriatum oculatum Westonbirt variety.—A fine variety of this handsome *Dendrobium*. The flower is large, the petals are broad, the lip is beautifully fimbriated, with an intense black-brown blotch in the centre. Shown by Captain Holford, C.I.E., Westonbirt, Tetbury, Gloucester (Orchid grower, Mr. Alexander). Award of merit.

Odontoglossum ramosissimum Burford variety.—A very beautiful form of an old species. The narrow petals and sepals are crimped, and thus have an uncommon and most attractive appearance. The flower is ivory white, spotted at the base of sepals and petals with purple. The upper half of the lip is also purple, thus the outer half of the flower is white, and the inner half purple. The plant exhibited carried a splendid raceme of flowers. Shown by Sir Trevor Lawrence, Bart., Burford, Dorking (Orchid grower, Mr. W. H. White). First-class certificate.

Odontoglossum amœnum Sander's variety.—A shapely and attractive flower, the result of a cross between O. *Pescatorei* and O. *sceptrum*. The sepals and petals have a cream ground colour. In the former this is marked with heavy bars of chocolate colour. The petals are less heavily marked. The lip is long and broad, primrose yellow, with a bar of chocolate colour across the centre. From Messrs. Sander and Sons, St. Albans. Award of merit.

Odontoglossum crispum Briton's Queen.—A large and handsome variety of O. *crispum*. The petals have fringed margins, and are suffused with lilac and lightly blotched and spotted with light red. The sepals are slightly fringed and similar, but more heavily blotched. The lip is rather small. The raceme shown carried nine fine blooms. From H. T. Pitt, Esq., Stamford Hill, N. Award of merit.

Epidendrum Boudinii.—A small group of this valuable Orchid was shown by Jeremiah Clinin, Esq., Gutton Park, Reigate (gardener, Mr. W. P. Brand). The flowers, which

are glowing apricot red, are produced on terminal heads upon long stems. They are produced throughout a long period, from October to May, or even longer. The parents of this hybrid were E. *radicans* and E. *Burtonii*. Award of merit.

Odontoglossum wiganianum.—This is a large and particularly handsome flower, the result of a cross between O. *wilckeanum* and O. *Rolfæ*. The ground colour is a rather dull deep yellow, and petals and sepals alike are blotched with chocolate colour. The lip is very large and broad; it is primrose coloured at the base and paler above, slightly spotted with chocolate. From Sir Frederick Wigan, Bart., Clare Lawn, East Sheen (Orchid grower, Mr. W. H. Young). First-class certificate.

Zygopetalum discolor atro-cerulea.—This is quite a distinct *Zygopetalum*. The upper sepal is pale primrose, and shows between the two broad pale violet petals; the remaining sepals recurve behind the flower stem. The lip is large and widely open, a rich violet colour throughout fading to a lighter shade towards the edges. A white disc at the base of the throat adds to the beauty of the flower. From Messrs. Sander and Sons, St. Albans. Award of merit.

FRUIT AND VEGETABLE COMMITTEE.

The only exhibit before this committee was a large basketful of The Factor Potato, sent by Messrs. Dobbie and Co. to show its keeping qualities, which was given a silver Banksian medal.

NEW NARCISSI.

The Narcissus committee made the following awards: *Narcissus King's Norton*.—From Messrs. Pope and Sons, King's Norton, Birmingham. First-class certificate.

Lord Kitchener.—From Mrs. Backhouse, Sutton Court, Hereford. Award of merit.

Alice Knight.—From Messrs. Barr and Sons, Covent Garden. Award of merit.

FLORAL COMMITTEE.

Present: Mr. Marshall (chairman), Messrs. J. Green, W. Bain, R. Hooper Pearson, J. Jennings, J. F. McLeod, H. J. Cutbush, J. W. Barr, W. Howe, Charles Dixon, Charles Jeffries, E. C. Notcutt, Charles E. Pearson, William Cutbush, Charles E. Shea, W. F. Thomson, E. H. Jenkins, W. J. James, Edward Mawley, E. T. Cook, George Paul, R. W. Wallace, and George Gordon.

A large table filled with greenhouse and other plants by Messrs. Veitch and Sons, Limited, Chelsea, contained a lot of *Corydalis Wilsoni*, a lovely plant from Central China, having alternately disposed bluntish leaves of a most graceful character. Its freedom of flowering is very remarkable. *Tillandsia Lindeni*, a fine bit of blue, was very fine, and near by *Crowea angustifolia*, with pinkish flowers on graceful sprays, was also good. *Clerodendron myrmecophila*, with a pyramidal inflorescence of orange flowers, is also a good and distinct plant. A great mass of *Xanthoxerus sorbifolia* was most effective. Blue *Hydrangeas*, scarlet *Anthuriums*, and *Amygdalus persica* fl. *rosea plena* was very good.

Mr. George Mount, C. nterbury, staged out Roses in boxes, such as Catherine Mermel, Ben Cant (crimson), *Souvenir de President Carnot*, Lady Roberts, and Mrs. Edward Mawley were all good. Among long-stemmed flowers we noted Frau Karl Druschki, Ulrich Brunner, Mrs. Luig, Captain Hayward, and others, all of which were very fine.

Messrs. Wallace and Co., Colchester, set up early-flowering plants. *Erythroniums*, *Trollius*, *Tulipa Greigi*, *Thalictrum anemonoides*, *Arnebia echinoides*, *Gentiana verna*, *Tulipa pulchella rosea* (3 inches high, with rich carmine flowers), *Iris bucharica*, and others.

Mr. A. F. Dutton, Iver, Bucks., staged a fine lot of tree Carnations, in which a lovely lot of Enchantress were a feature. Mrs. Lawson and the brilliant *Flamingo* were also very fine. The flowers were simply perfect.

Messrs. Dobbie and Co., R. thesay, set up a beautiful lot of Pansies, both tufted and fancy kinds. In the former we noted *Isolde*, golden; *Shamrock*, white; *Katie Cutbush*, rosy-mauve; *Primrose Dame*, Duke of Argyll, very distinct, striped maroon; *Princess Ida*, delicate mauve; *General B. Powell*, a perfect flower, and others.

A fine array of *Anthuriums* were sent from the gardens of Sir Trevor Lawrence, Bart., Burford (gardener, Mr. Bain). There were many imposing sorts in the large group. All were forms of A. *scherzerianum*, and we take *Parisense*, *salmon*; *elegans*, a chequered kind; and *buffordense* and *Wardii*, crimson, as among the best.

From Messrs. B. S. Williams and Son, Holloway, N., came a large grouping of *Azaleas*, *Lilacs*, and other forced shrubs in quantity. The *Lilacs* were well grown and freely flowered.

Mr. Richard Anker, Napier Road, Kensington, staged *Myrtles* in pots.

Messrs. Low and Co., Enfield, staged a small lot of tree Carnations in variety, in which Mrs. Lawson was a good feature. *Floriana*, *Eichantress*, and *Giv. Rosevelt*, with *Malmaisons*, were also exhibited in considerable numbers, together with the *Myrtle-leaved* *Smilax*.

Messrs. W. and J. Brown, Stamford, had a mixed exhibit of *Roses*, *Verbena Miss Wilmott*, *Pelargonium Fire Dragon*, *Rambler Rose Dorothy Perkins*, and many plants of *Dimorpha theca Ecklonii*.

Mr. G. Reathe, Keston, Kent, set up alpine plants in variety, in company with *Rhododendrons*, *Camellia reticulata*, *Narcissi*, &c. Alpine and other *Primulas*, *Hepaticas*, *Androsace carnea*, and *Iris stylosa* were all noteworthy. Among the *Narcissi* *Gloria Mundi* and *Victoria*, *Beauty*, and *Lucifer* were all good.

A large collection of cut *Camellias* from the open air was shown from the garden of Sir F. T. Barry, Bart., M.P., St. Leonards Hill, Windsor. There were some four dozen

vases of the flowers, such as *Chandlerii* (crimson), and its variety *elegans* were very fine. A variety named "Selling," with single crimson flowers, is very showy. *Lavonia Maggi* is striped. *Alba plena*, *Tricolor Nova* (striped single), and a single flowered white seedling were among the best of these old-time favourites.

Mr. John R. B. x, Croydon, exhibited *Begonia Gloire de Sceaux* and B. *Gloire de Lorraine*.

A very fine exhibit of forced shrubs was shown by Messrs. R. and G. Cutbush, Southgate. Everything staged was in excellent condition, and the exhibit a most extensive one. *Genista andreaea*, *Azalea mollis*, *Lilacs* in single and double forms, and *Magnolia speciosa*, a form with ivory-white petals internally, and suffused with purple externally, arranged amid *Acers*, were very effective.

Messrs. J. Peed and Son, West Norwood, showed a large lot of alpine plants. The collection was quite representative. The Cobweb Houseleeks were a very interesting lot of plants.

Messrs. Cutbush and Son, Highgate, had a most effective lot of *Ericas*, *Boronias*, and the like. The new pink-flowered *Rambler Rose* Mrs. F. W. Flight is a very dainty kind, free in flowering and pleasing in colour.

Anemones in much variety of colour, &c., were very good from Messrs. Gilbert and Son, Dyke, Lincolnshire. *King of Scarlets* is a most dazzling colour, the crown tuft of petals giving it a distinct appearance. *A. fulgens*, *A. Pulsatilla*, and the St. Brigid *Anemone* were all well shown.

A fine lot of *Polyanthus* came from Mr. S. Mortimer, Farnham, showy in the mass, free-flowering, and in great variety of colour.

Some very handsome blooms of *Gardenia florida* intermedia came from the Earl of Clarendon, The Grove, Watford (gardener, Mr. C. Harris).

Roses in pots from Messrs. William Paul and Son, Waltham Cross, were very good. *Etoile de France*, H.T., coppery crimson, is very handsome, and highly fragrant; *Juliet*, T., cream and rose; and *Warrior*, a long, tapering bud of fine form, crimson in colour, is a capital thing for winter work, producing on long stems the prettily shaped flowers.

Messrs. J. Jarman and Co., Chard, staged a few *Cinerarias*, which were named "Cactus" variety. They were of the stellata type, with reflexed petals.

Messrs. Jackson and Son, Woking, contributed a good lot of hardy things, alpine plants in variety, as *Ramondias*, *Androsace pyrenaica*, *Saxifraga Rhei superba*, *Primula rosea*, *Aubrietia Dr. Mules*, and others. A large mass of *Doronicum* was included.

Messrs. T. S. Ware, Limited, Feltham, staged a large and interesting lot of hardy things, as *Primula Sieboldii*, *Narcissus*, *Primulas*, and coloured *Primroses*, with pans of *Aubrietias* and other things in abundance.

From Miss Wilmott were sent the double white *Hepatica* and a large gathering of *Narcissus Bulbocodium*.

Mr. H. B. May, Edmonton, filled a large table with *Ferns* and the beautiful foliage *Begonias*.

Messrs. William Bull and Sons, Chelsea, exhibited a group of *Narcissus*.

Messrs. Cannell and Sons, Swanley, staged a really grand lot of their zonal *Pelargoniums*, also P. *Purity* and P. *Volonté Nationale alba*. The zonals were as near perfection as could be desired. The same firm had a small exhibit of cactaceous plants.

A large group of *Anthuriums* was exhibited by H. L. Bischoffsheim, Esq., Stanmore (gardener, Mr. C. J. Ellis), the well-flowered examples making a fine display. Silver Flora medal.

The Misses Hopkins, Mere, Cheshire, brought a small group of *Primroses* and other early flowers.

Verbenas were shown by F. A. Bevan, Esq., New Barnet, while Sir Alfred Harmsworth, Bart., Guildford, sent a very handsome group of *Cineraria stellata* and *Cyclamens*. The former were of large size, fine bushes indeed, and profusely flowered.

Messrs. Cutbush and Son, Highgate, on this occasion gave a rockwork exhibit of a most instructive and useful character. The arrangement displayed much skill, taste, and intelligence in the design and in the general furnishing. We have not space to refer in detail to the many things shown, and we state broadly that almost every phase of a well-equipped rock garden was seen in this excellent exhibit. Colonies of alpine plants and many others were arranged with such skill that only a close study and knowledge of the plants could render possible. A gold medal was deservedly awarded.

Mr. Charles Dawson, Penzance, again staged many choice *Daffodils*. *Horace*, *Homespun*, *Pilgrim*, *Viking* (a fine bicolor), *Cavalier* (rich cup), and *Monarch* (very handsome), *Bernardino* (a very distinct cup of light orange and apricot), and *Peveril* (intense cup of rich orange), are a few of the best.

Miss F. W. Curry, Lismore, Ireland, received a silver-gilt Flora medal for a very fine lot of *Narcissi*. *Radiance*, *Enid*, *White Queen*, *Atalanta* (white Ajax), *Maggie May*, *Gold Eye*, *Redcoat*, and *Flamingo* are among those with somewhat descriptive or suggestive names.

Select *Narcissi* were sent by Mrs. Backhouse, Sutton Court, Hereford.

Messrs. Veitch and Son contributed a collection of *Narcissi* in the best kinds, most sections of the flower being well represented.

A very nice lot of *Narcissi* came from Messrs. Pope and Sons, Birmingham, a huge flower, *King's Norton*, attracting much attention. *Torch*, *White Lady*, *Lady M. Boscawen*, C. J. Backhouse, Santa Maria, and *Pope's Surprise* (Ajax) being conspicuous.

* Not seen of several other exhibits and the new plants are unavoidably held over until next week.

LINNEAN SOCIETY.

MR. HEMSLEY LECTURES ON "THE NEPENTHES."

AT a meeting of this society, on the 6th inst., Mr. W. Butting Hemsley, F.R.S., exhibited a number of specimens and drawings of pitchers of *Nepenthes*, supplemented by slides prepared by Mr. L. Farmer, to illustrate the various types of pitchers and their marvellous glandular systems. Mr. Hemsley began by saying that he did not pretend to show much that was new to science, though probably new to many of the Fellows present. There are glands on almost all parts of Pitcher Plants, from the stems to the flowers, and they vary very much in structure, but there are only two classes, namely, attractive and digestive. The former are generally distributed over the plant, except the inside of the pitcher, where alone the digestive glands occur. The pitcher is an appendage of the leaf, borne on a prolongation of the midrib, which often acts as a tendril. It consists of a tubular or inflated body, with two anterior longitudinal ribs, which often develop into elegant fringed wings, and one posterior rib, which usually terminates in a spur, running out just below the hinge of the lid or operculum. The mouth of the pitcher is surrounded by a more or less elaborately constructed collar or peristome.

Mr. Hemsley first exhibited a new species, *Nepenthes Macfarlanei*, which differs from all other known species, except *N. Lowii*, in the under side of the lid being thickly beset with stiff bristles, interspersed with large honey-glands. The function of the bristles in this position is not obvious, but their rôle would seem to be preventive to flying insects, though ants might creep among them and drink the honey. The pitchers of *N. Macfarlanei*, as probably of all other species, are of two kinds, apart from those on the young seedlings. In some, perhaps only the intermediate ones, the whole of the inner surface is covered with digestive glands, and the anterior ribs are not winged; in others, the upper part of the inner surface is perfectly smooth, forming what is termed the conductive zone to the glandular or retentive zone; the anterior ribs are developed into fringed wings, and the collar has an upward elongation where the lid is attached. The honey-glands on the under side of the lip are very prominent, oval or circular in outline, surrounded by a raised rim, and from one-fifth of an inch to one-twelfth of an inch in diameter. The digestive glands are gradually smaller from the base upwards, and vary from about 2,000 to 5,000 to the square inch. These glands are many-celled, ovoid or spherical in shape, and, in consequence of the unequal growth of the tissue in which they are embedded, they are more or less overarched, the opening of the arch looking downwards. The surface is hard and polished, quite smooth to the finger moving in a downward direction, and rough to the finger, from the sharp edges of the arches, moving in an upward direction.

Other species were then compared with *N. Macfarlanei*. *N. Lowii* has much larger, differently shaped pitchers, constricted in the middle, and has sunken honey-glands on the lid as much as one-fifteenth of an inch in diameter, with a very small pore opening. The digestive glands in the lower part of the pitcher are pentagonal to heptagonal in shape, with a raised hard rim all round. The collar is the simplest in the genus, but it has a prominent single series of perithecoid honey-glands near its inner margin.

N. Rajah, in a wild state at least, has sometimes a total length of leaf and pitcher of between 5 feet and 6 feet, and a very elaborate collar, with a comb-like inner margin and solitary honey-glands, reached by a tunnel-like opening between the teeth. The largest pitchers of *N. Rajah* have a capacity of two quarts. In *N. echinostoma* the collar consists of several series of combs, directed inwards and downwards, with a similar honey-gland in each tooth. In all other species examined the glands are between the teeth or spines. *N. edwardsiana* has a relatively narrow pitcher, sometimes as much as 2 feet long, and the collar has transverse thin rings that give it a very distinguished air. The conductive surface in the upper pitchers occupies nearly three-quarters of the length of the pitcher. The digestive glands in the upper part of the retentive zone of this pitcher are very small, and number about 15,000 to the square inch. Many other interesting comparisons were made. Thus *N. northiana* and *N. Veitchii* have remarkable broad, turn-down, plaited scolloped collars. *N. bicalcarata* is remarkable in having two very sharp spurs springing from near the hinge of the lid and projecting over the mouth of the pitcher. *N. celebica* has a horn-like appendage on the lid at a point opposite the hinge.

Briefly, all the complex arrangements favour the descent of insects and other creatures into the pitchers, and hinder almost all visitors from getting out again. Once in there is little hope of escape. A few hybrids were also shown, notably one named Sir William Thistleton Dyer, which has produced the largest known pitcher in cultivation, being a pint and three-quarters in capacity.

LATE NOTES.

Wintry weather in April.—The weather here during the month of March was mild and moist, and continued so until the evening of the 4th inst., when a most undesirable change took place. On that date the wind shifted into a northerly direction, and has remained bitterly cold since. On the morning of the 6th 6° of frost were registered, and on the

7th 2 inches of snow fell, giving the landscape a very wintry appearance. It struck one as a most unusual sight, though one of great beauty, to see bright yellow *Daffodils*, many coloured *Polyanthuses*, beautiful purple *Primula capitata*, *Saxifraga crassifolia*, with their lovely pink blooms, and other hardy spring flowers showing their bright blossoms above the groundwork of pure white snow. But most striking of all were large bushes of flowering Currants, their drooping branches draped with crimson flowers, and gleaming like jewels in a setting of dazzling white. Sad it was to watch hungry thrushes hunting round for worms with which to feed shivering, unfledged families, who, like our Peach, Plum, Cherry, and other blossoms, were badly prepared for such a sudden change.—J. JEFFREY, *The Gardens, St. Mary's Isle, Kirkcudbright.*

National Chrysanthemum Society's market show.

—The committee which carried out to such a successful issue the exhibition of Chrysanthemums as grown for market, which, it will be remembered, was held in the Essex Hall, Strand, in December last, made a recommendation to the executive committee that a second show should be held in December next, the 13th being the date named. The executive committee acceded to this recommendation, and authorised the holding of an exhibition on the date named. The committee having power to extend their numbers, have done so, it being strengthened by the introduction of a strong market element; and as the Essex Hall would be certain to be too small, application was made to His Grace the Duke of Bedford for permission to hold it in the French Flower Market, Covent Garden, and His Grace has kindly given his consent to the application, a result warmly welcomed by both growers and salesmen, not only as being so much more convenient, but also as affording so much more space. The committee are engaged in framing a scheme to provide a show on a larger scale, the particulars of which will be made public as soon as possible.

The Henry Eckford testimonial.

The subscriptions received towards this fund up to Saturday, the 8th inst., are:

	Shgs.		Shgs.
Previously acknowledged	159½	Mr. S. F. Jackson	.. 5
Mr. E. Bowley ..	.. 1	Mr. W. Jones ..	.. 1
Mr. A. F. Blades ..	.. 5	Mr. L. J. McRae ..	.. 1
Mr. R. Bolton ..	.. 5	Mr. A. Nash ..	.. 2
Mr. T. Challis ..	.. 5	Mr. S. C. Norman ..	.. 1
Mr. Neville Clezzy ..	.. 5	Mr. C. Osman ..	.. 2
Messrs. E. Imundson Bros.	.. 1	Mr. R. H. Pearson ..	.. 5
Emerson Park Horticultural Society ..	13½	Mr. A. Roney ..	.. 1
Dr. D. L. Freeland ..	.. 2	Miss H. C. Philbrick ..	10½
Mr. T. F. Gadsby ..	.. 1	Mrs. Smith ..	.. 1
Mr. S. F. Higgins ..	.. 1	Mrs. Arnold Steer ..	.. 5
Messrs. I. House and Son	10½	Mr. T. Stevens ..	2½
		Mr. G. Townsend ..	.. 1
		Mr. T. A. Weston ..	.. 1

Cinerarias at Farnham Royal.

When the Cineraria blooms we know the spring has come, even if the Primroses in the woodland were not there to tell us. It fills the greenhouse with a colour that no other flower can give in so great a diversity of sumptuous hues, that is, when the strain is as fine as that in Messrs. James and Sons' nursery at Farnham Royal. We have written of this beautiful race of flowers on many occasions, but it is always a pleasure as the years pass by to see the Cinerarias in the months of April and May, when the plants are in their beauty. This strain is known as dwarf, but in the growth there is nothing unpleasantly formal. The plants are leafy, luxuriant, and crowned with masses of flowers, which for size and symmetry are remarkable, the work of many years of patient crossing and hybridisation to achieve an ideal plant. This was accomplished many years ago by the present owner's father, but there has been no retrogression, rather continued improvement, as the splendid display in the houses to-day fully testifies. The colours are

kept distinct, and the effect is bewildering. One house is filled with a white form, set off by a centre of violet. This, to our thinking, is the most beautiful of the race. In another house there is a self purple, so rich and intense that even a *Clematis Jackmani* would pale before it. On one passes, from blue to blue with white centre, pure rose, pink, and crimson, a brilliant gathering together of all that is best in the world of Cinerarias. In another part of the nursery a house is full of the stellata group, the variety most prized being almost pure white. It is a beautiful flower, graceful and distinct. It is a matter of opinion whether the dwarf or the taller Cineraria is the more welcome. We can only say that both have their distinctive merits.

A charming break in Cineraria stellata.

—Messrs. Jarman and Co., seed merchants, Chard, have just sent me some sprays of several varieties of Cineraria stellata, in which the edges of the florets recurve, as in many of the Cactus Dahlias; indeed, the strain might be denominated Cactus Cinerarias, as they resemble in shape the single Cactus Dahlias. Some were white, others blush, also blue and violet-blue, and some charmingly tipped, such as white tipped with bright pinkish violet, and white tipped with bright rosy purple. Then to add to their attractiveness they have dark discs, which in the case of Cinerarias always afford the best contrast. Messrs. Jarman and Co. say that the plants are not so tall and straggling in growth as in the older types, but are yet quite as graceful. For furnishing small vases on the table they are, judging from the experiments I made with the flowers sent me from Chard, most suitable.—R. D.

OBITUARY.

JAMES WILSON, ST. ANDREWS.

THE old city of St. Andrews, Fife, is famed as a University seat and as the Mecca of golf rather than as a centre of horticultural enterprise. Visitors, however, have long been aware of the existence of an interesting florist's establishment there, built up by the late Mr. James Wilson, and conducted by him for over forty years.

Mr. Wilson was trained to gardening in St. Andrews, and he was a typical member of the old school. When an apprentice he set about making a herbarium of the plants of the district, walking many a mile for the purpose after the duties of the day were over. Every branch of gardening found in him an earnest student and an expert exponent. None, however, appealed to him more than that of landscape gardening. To skill and taste in plan drawing he added ingenuity of execution and a thorough knowledge of plants suitable for the work in hand. Such works of his as the planting of the fine Lime trees in the main street, the laying out of the new cemetery, and the remodelling of the extensive grounds of St. Leonard's School for Girls may be mentioned.

Mr. Wilson took a deep and practical interest in the experiments in hybridisation carried on by his second son, Dr. John H. Wilson, Lecturer in Agriculture to the University of St. Andrews. As a result, Greenside Nursery now contains many highly interesting and well-grown novelties of value to both gardeners and farmers. It is satisfactory to know that the business falls into the hands of the eldest son, Mr. James Wilson. Mr. Wilson died suddenly on the 7th inst., aged seventy years.

J. BURRELL, CAMBRIDGE.

WE regret to hear, at the moment of going to press, of the death of Mr. Burrell from pneumonia, after a brief illness. Mr. Burrell was greatly beloved by all with whom he came in contact, and his skill as a raiser of new Dahlias and Gladioli is almost world-wide known.

ROWNTREE'S NEW GIANT SWEET PEAS.

Our Essex grown Sweet Peas are vastly superior to the German and other foreign grown seed, of which large quantities are sold in this country. Our 24-page booklet, "**How to Grow and Show the Finest Sweet Peas**," with notes on "Preparing the Ground," "Sowing the Seed," "Protection from Vermin," "Thinning," "Staking," "Watering," "Mulching," "Manuring," "Shading," "Exhibiting," etc., will be sent free with all orders.

COLLECTION NO. 4.—12 NEWEST AND BEST VARIETIES.

Dorothy Eckford, new giant white self.
King Edward VII., the richest and brightest crimson.
Mrs. Walter Wright, beautiful shade of mauve, new.
Dainty, creamy white, with pink picotee edge, new.
Miss Willmott, deep orange pink, giant flower.
Hon. Mrs. E. Kenyon, the best primrose-yellow.
Lady Grisell Hamilton, beautiful pale lavender.
Lord Rosebery, rich rose carmine.
Prima Donna, beautiful shade of soft pink.
Jeannie Gordon, bright rose, shaded cream.
Duke of Westminster, shining violet purple.
Countess Cadogan, violet and sky blue.
 12 packets, 50 seeds in each, 2/6, post free.
 Gratis, with this Collection, 1 packet *Eragrostis Elegans*.

COLLECTION NO. 2.—12 SUPERIOR VARIETIES.

Sadie Burpee, pure pearly-white, of dainty form.
Mars, bright fiery-crimson self.
Emily Eckford, rich cerulean blue.
Countess of Radnor, lavender self.
Countess of Powis, glowing orange, suffused purple.
Lottie Hutchins, delicate cream, flaked rose.
Countess of Lathom, bluish-pink, tinged salmon-buff.
Lord Kenyon, rich rosy-crimson.
Hon. F. Bouverie, beautiful coral pink.
Prince Edward of York, scarlet and rose.
Stanley, deep maroon, self large and handsome.
Admiral, delicate rosy-mauve.
 12 packets, 50 seeds in each, 1/6, post free.
 Gratis, with this Collection, 1 packet *Gypsophila Elegans*.

SPECIAL PRICE FOR COLLECTIONS, 3 and 4, 4/-; 2, 3 and 4, 5/-; 1, 2, 3 and 4, 6/-.

ROWNTREE'S "MATCHLESS" MIXTURE OF GIANT SWEET PEAS FOR 1905. This mixture of the finest large-flowered Sweet Peas is **absolutely unequalled**. Each year we strive to "surpass ourselves" in this special mixture. We are quite sure that, notwithstanding the claims of some competitors, *an equally high-grade mixture cannot be obtained elsewhere*. The seed, of course, is not grown in mixture at all. It is "blended" by ourselves of the largest-flowered, most beautiful named varieties—each grown separately from the finest selected strains, and consists of all the best and "only the best" of the varieties introduced prior to last year, and which have never before been included in any mixture.

ROWNTREE'S "SPECIAL" MIXTURE OF SOFT AND DELICATE COLOURS, which are greatly in demand for decorative work and comprising all those unique shades and combinations of colour so much appreciated by ladies. We have specially prepared this mixture of the finest large-flowering varieties only, and we can highly recommend it to those who have a preference for the pale alluring tints of this exquisite flower.

COLLECTION NO. 3.—12 SUPERB VARIETIES.

Blanche Burpee, purest white, extra large, bold form.
Sunproof Salopian, deep crimson, superb flower.
Dorothy Tennant, puce-violet, or rose-mauve.
Lottie Eckford, white, with pure picotee edge.
Lady Marie Currie, orange-pink, shaded rosy-lilac.
Queen Victoria, soft primrose-yellow, bold flower.
Coccinea, beautiful cerise self.
Prince of Wales, bright rose self on intense colour.
Lovely, soft shell pink, truly most "lovely."
Gorgeous, standards orange-salmon, rose wings.
Black Knight, deep maroon self, clear and shining.
Navy Blue, rich dark violet-blue.
 12 packets, 50 seeds in each, 2/- post free.
 Gratis, with this Collection, 1 packet *Agrostis Nebulosa*.

COLLECTION NO. 1.—12 GOOD OLD FAVOURITES.

Emily Henderson, large pure white.
George Gordon, bright reddish-crimson lake.
Lady Skelmersdale, rosy-pink and lavender.
Aurora, fine bold flower; flaked orange-salmon.
Mrs. Dugdale, most lovely rose, shaded primrose.
Venus, salmon-buff, delicately shaded rosy pink.
Golden Gate, pinkish-mauve, darker picotee edge.
Captivation, rosy-purple self, a charming variety.
Royal Rose, deep rose standards, pink wings.
Triumph, orange-pink standards, wings rosy purple.
Her Majesty, rich rosy-crimson self.
Captain of the Blues, bright purple-blue.
 12 packets, 50 seeds in each, 1/- post free.

ROWNTREE BROS., F.R.H.S.,

30, GREAT ST. HELEN'S, LONDON, E.C.
 And at Chelmsford, Essex.

CHEAP PLANTS FOR PRESENT PLANTING.

Orders of 5s. and over are sent carriage paid to any address in the United Kingdom (for cash with order).

	s. d.
12 Michaelmas Daisies in 12 varieties	2 6
12 Pyrethrums in 12 best varieties	4 0
12 Aquilegias, fine long spurred	2 0
12 Oriental Poppies, crimson and salmon	2 6
12 Phloxes in 12 varieties	3 6
12 Paeonies in 12 varieties	8 0
12 Pentstemon Barbatus	2 0
12 Canterbury Bells	1 0
12 Double White Arabis	2 0
12 Chrysanthemum Maximum	2 6
12 Tiarella Cordifolia	2 6
12 Dielytra Spectabilis	3 0
12 Gaillardia Grandiflora	2 6
12 Geum Coccineum	2 0
12 Physalis Franchetti	2 0
12 Hypericum Calycinum	3 0

Special Spring clearance offer of Fruit Trees, Roses and Perennials free on application.

S. S. MARSHALL, Ltd., The Barnham Nurseries, Sussex.

All to gather

All together

The idea that Seeds in threepenny packets germinate better than the same seeds in penny packets is as profitable for the Seller as it's wasteful for the Buyer.

Be wise and send for List of Seeds in Penny Packets.

The Co-operative Bees, Ltd., Liverpool.

Blackmore & Langdon's BEGONIAS,

Awarded Twelve Gold Medals, 1902-3-4.



OUR TYPE OF DOUBLE BEGONIA, FROM A PHOTOGRAPH.

Are unequalled for Conservatory decoration, Exhibition, or for Bedding purposes.

SEND FOR PRICE LIST GRA. IS.

NOW READY, STRONG PLANTS LATEST AMERICAN TREE CARNATIONS.

BORDER CARNATIONS IN GRAND VARIETY. Strong Plants in pots 5/- and 7/6 per dozen.

TWERTON HILL NURSERY, BATH.

THE

CRAVEN NURSERY,

CLAPHAM, LANCASTER.

The Nursery for all Rare and Beautiful
ALPINES & AQUATICS.

No connection with any establishment similarly named.

All Collectors of Alpines should apply for Catalogues.

STRONG PLANTS, TRUE TO NAME,
 FAIR PRICES.

ALSO A FINE ASSORTMENT OF

Japanese Plants and Gardens.

NOW IS THE TIME TO PLANT EVERGREENS

Of which it may not generally be known that many kinds, especially those referred to below, are in splendid condition (always of course supposing that they have, as in this case, been properly prepared) for removal in Spring, even when growth has commenced, such as

HOLLIES, AUSTRIAN and other PINES, YEWs, LAURELS, AUCUBAS, IVY TREES or BUSHES, RHODODENDRONS, etc.

CHEAP COLLECTIONS

of extraordinary value (R. S. & Co.'s choice) for Customers' requirements:—

12 Shrubs in 12 sorts	for 6/- to 12/-
50 " " 25 " "	" 20/- to 35/-
12 Conifers in 12 " "	" 12/- to 24/-
50 " " 25 " "	" 40/- to 90/-
12 " " 12 " "	" 24/- to 42/-
50 " " 25 " "	for 80/- to 150/-

A magnificent collection of **HERBACEOUS and ALPINE PLANTS** in prime order for removal.

Also **PLANTS IN POTS** most suitable for Pergolas, Verandahs, Trellises, Walls, Screens, Hanging Baskets, etc. These plants have been very carefully selected for various situations and objects, with a view to greatly enhancing beauty in landscape, etc., where already existing, and supplying it where so often needed, in obscuring or transforming an eyesore into a lovely sight.

Catalogues, further particulars, or advice on application.

RICHARD SMITH & CO.
WORCESTER.

LAURELS
 Bushy and
 Finely Rooted.

Best
 and Hardest.

ROTUNDIFOLIA

18in. to 24in. 16/-, 24in. to 30in. 20/-, 30in. to 40in. 30/- per 100.
R. B. LAIRD & SONS, LTD., EDINBURGH.

BOOKS.

La Griffe et la Taille des Rosiers.*

Books on Roses abound in all languages, and we have often wondered who there is that will some day undertake the work of compiling a complete up-to-date bibliography of the Queen of Flowers, the only attempt we know of having been made at least thirteen years ago by a Spanish writer. To the already lengthy list the veteran author and horticulturist, M. Charles Baltet of Troyes, has recently added one on the grafting and pruning of Roses. This, which has just reached us, is a neatly printed little manual of 115 pages, octavo in size, and containing forty-six illustrations. Instructions for grafting on the various stocks are given in a series of chapters that seem to cover the whole subject. To know how to graft, to know when and how to prune a Rose according to its vigour and species, are certainly questions likely to interest all lovers of this ever-popular flower. M. Baltet, as an experienced grower, is well qualified to speak with authority on all such matters. Instructions are also added to guide gardeners and beginners in Rose culture in the requirements of the flower, and in addition to these a list of the finest Roses has been compiled by the author's son, M. Lucien Charles Baltet, in the various sections and according to their colours. Rose-growers who understand French will no doubt find much interesting matter in this little book which, it is claimed, has not yet been sufficiently made clear in the various special treatises that have hitherto appeared.

Les Plantes Alimentaires Indigènes.†—Quite a little pamphlet, uniform in size with the preceding, and dealing with edible plants, &c., indigenous to France. The author reminds us that in years gone by, in times of famine and distress, our ancestors were often compelled to eat many roots and wild herbs that to-day no longer find a place on our tables. Potato growing has largely displaced many of these, and indigenous edible plants of the present are Mushrooms, Cornsalad, Dandelion, Watercress, and one or two others. The treatise is divided into three main headings: 1, Tubers, rhizomes, bulbs, and edible roots. 2, Herbaceous plants that can be eaten after cooking like Spinach, Cabbage, and Asparagus. 3, Indigenous herbaceous plants to be used as salades.

TRADE NOTE.

THE EUREKA WEED KILLER.

THIS is a labour-saving age, and, as with machinery, so chemicals play a large part in effecting saving. Recently a test has been made upon garden paths and drives with a preparation called the Eureka Weed Killer, and it has been found most effective in its action. It is supplied either as a dry powder to mix with water or in liquid form, both preparations being the same in price and effect, though the powder seems generally preferred. The solution is easily applied by means of a water-can with rose, and within a short time of application the weeds, moss, and other growths are killed, and the ground is brightened and cleansed without being disturbed. It has been found that the average cost for treating 100 square yards of path is only 1s. 6d. The makers of the Eureka preparations are Tomlinson and Hayward, Limited, Lincoln.

FORTHCOMING SHOWS.

April 25.—Royal Horticultural Society's Meeting (Auriclea and Primula Show); Chesterfield Horticultural Show.
May 9.—Royal Horticultural Society's Meeting.
May 11.—Annual Dinner of the Royal Gardeners' Orphan Fund, Hotel Cecil.
May 17.—Royal Botanic Society's Show, Regent's Park.
May 23.—Royal Horticultural Society's Meeting (Tulip Show).
May 28.—Royal Caledonian Horticultural Show at Edinburgh (two days); York Society of Florists' Show.
May 30.—Royal Horticultural Society's Temple Show (three days); Bath and West of England Show (five days).

* "La Griffe et la Taille des Rosiers." By Charles Baltet. Paris: Masson et Cie, 120, Boulevard St. Germain, and Maison Rustique, 24, rue Jacob.

† "Les Plantes Alimentaires Indigènes." By Georges Gibault. Librairie Horticole, 84 bis rue de Grenelle, Paris.

June 1.—Rhododendron Exhibition, Botanic Gardens, Regent's Park, throughout the month.
June 7.—Royal Botanic Society's Show (three days).
June 16.—Gardeners' Royal Benevolent Institution Annual Dinner.
June 20.—Royal Horticultural Society's Meeting; Salterhebble Flower Show.
June 21.—York Gala (three days).
June 27.—Oxford Commemoration Show.
June 28.—Southampton Rose Show (two days); Richmond (Surrey) Horticultural Show.
June 29.—Colchester Horticultural Show.
July 4.—Royal Horticultural Society's Meeting; National Sweet Pea Society's Show; Sutton Rose Show.
July 5.—Tunbridge Wells, Hanley (two days), and Croydon Flower Shows.
July 6.—National Rose Society's Show; Sidecup Flower Show.
July 11.—Wolverhampton Floral Fête (three days).
July 13.—Woodbridge Horticultural Show.
July 18.—Royal Horticultural Society's Meeting (Carnation and Picotee Show); National Rose Show at Gloucester.
July 19.—Newcastle-on-Tyne Flower Show (three days); York Florists' Show.
July 25.—Tibshelf Horticultural Show.



SILVER CUP TO BE OFFERED BY MESSRS. JAMES CARTER AND CO., HIGH HOLBORN, AT THE NATIONAL POTATO SOCIETY'S SHOW IN DECEMBER NEXT.

July 26.—Southampton Carnation Show and Cardiff Flower Show (two days).
August 1.—Royal Horticultural Society's Meeting.
August 2.—Chesterfield Horticultural Show.
August 7.—Lichfield, Wells, Mansfield, Grantham, and Ilkerton Flower Shows.
August 9.—Bishop's Stortford, Tavistock, and Ventnor Horticultural Shows.
August 15.—Royal Horticultural Society's Meeting; Clay Cross Horticultural Show.
August 16.—Calne and Harpenden Flower Shows.
August 17.—Dyffryn District and Taunton Deane Horticultural Shows.
August 19.—Seascale and Lake District and Sheffield Flower Shows.
August 21.—Warkworth Horticultural Show.
August 22.—Rothsay and Oxford Flower Shows.
August 23.—Shrewsbury Floral Fête (two days).
August 24.—Aberdeen Flower Show (three days).
August 26.—Jedburgh Horticultural Show.
August 29.—Royal Horticultural Society's Meeting.
August 30.—Bath Flower Show (two days).
August 31.—Ellesmere and Sandy Horticultural Shows.

GARDENING APPOINTMENTS.

MR. R. SMITH, for two years foreman at Mostyn Hall, as head gardener to the Earl of Denbigh, Downing Hall, Holywell, North Wales.

MR. W. ROBSON, Royal Botanic Gardens, Kew, has been appointed agricultural instructor at the Botanic Station, Montserrat, West Indies.

MR. G. JOHNSON, for the past four years foreman at Knowlesy Gardens, Prescot, has been appointed gardener to Lord Burnham, Hall Barn, Beaconsfield, Bucks.

PRIZES FOR GARDENERS.
APRIL.

FRUIT TREES IN POTS.

A First Prize of FOUR GUINEAS,

A Second Prize of TWO GUINEAS,

A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA

will be given for the best answers to the questions published below.

This competition is open to all professional gardeners. Replies must be addressed to the Editor of THE GARDEN, 3-5, Southampton Street, Strand, London, W.C., marked "Competition," and must reach this office not later than May 1.

I.—Do you consider annual repotting to be beneficial to fruit trees in pots or not?

II.—When should fruit trees in pots (not hard forced) be repotted? Give the ingredients of what you would consider to be an ideal soil. What is likely to occur after potting if proper precautions are not taken?

III.—When would you prune Peach and Nectarine trees in pots; describe the method you would adopt.

IV.—What is the average life of a pot fruit tree when properly grown? Complaints are often made that pot fruit trees quickly deteriorate. Why is this? Describe the best method of restoring the trees to health.

V.—Give the best six varieties for pot culture of Peaches, Plums, and Cherries, and the best three varieties of Figs and Nectarines. Say which you consider to be the best one in each case.

VI.—In order to have pot-grown fruits of Cherries, Plums, Peaches, and Figs ripe by the middle of May, say when you would start the trees, and give the temperatures for each fortnight until the fruits are ripe.

VII.—What is the best chemical manure for Cherries, Plums, and Peaches? (Special concentrated manures must not be mentioned.) Say why it is the best.

VIII.—What is the proper treatment for trees after forcing?

PRIZES OPEN TO ALL.

PLAN OF A FLOWER BORDER.

A FIRST PRIZE of Five Guineas and a second prize of Two Guineas are offered for the best plan of a border of hardy perennials, 130 feet long by 10 feet wide, drawn to a scale of a quarter of an inch to a foot; bold grouping and good arrangement for colour and succession to be the main considerations. Half-hardy annuals and biennials may be included. The names of the plants to be written in their spaces on the plan—not referred to by letter or number. This competition remains open until the last day in September.

* * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN

No. 1744.—VOL. LXVII.

APRIL 22, 1905.

ROSES—OWN ROOT OR GRAFTED.

WE print with pleasure the following interesting letter, asking for the opinions of readers on the merits of own root or grafted Roses.

There is so much to be said on this subject that we hope our correspondent's wish will be gratified. We should much like to know the varieties that succeed well on their own roots, a list that may be trusted.

"You would be doing amateurs a service if you could afford space in your paper for the recorded experience of Rose growers who are in a position to compare own root Roses with those that have been grafted. From time to time stray letters appear exulting over results from one or the other method, but the whole facts are never given. What we want is careful observation extending over several years, and the conditions given relating to soil, situation, rainfall, and the names of the Roses grown. The following are extracts from the conclusions of other growers. Taken as a whole they are somewhat elusive as working instructions:

"Tea Roses require a rich, greasy loam."

"Tea Roses need a light soil."

"They do best on the seedling Briar."

"They should be grown entirely on their own roots."

"They like plenty of cow manure."

"Manure of any kind is unnecessary."

"This last statement is from a recent letter in which the writer asserts that he has grown the finest Tea Roses for seven years in a place without ever giving one inch of manure of any kind. He attributes his success to growing the Roses on their own roots.

"Here is my experience, to which I do not attach any undue importance, being but an amateur who grows dwarf Tea Roses massed for garden effect, and who attends to them in the intervals of a busy life not closely connected with a bed of Roses.

"My garden is about 80 feet above the sea level, in a valley in Kent, about 200 yards from a stream. My principal Tea Rose beds were made about ten years ago, the natural soil, which is of a light and hungry nature, having been dug out to a depth of 3 feet, and filled in with prepared soil, consisting of yellow loam and manure from a local nurseryman. This soil, however, must still be described as light and friable, and different from what is meant by heavy clay loam. In these beds the following Roses have given abundance of bloom for ten years, but notably in very wet summers: Jules Finger, Anna Olivier, Mme. Hoste, Mme. Lambard, S. A.

Prince, Souv. d'un Ami, George Nabonnand, Mme. Charles, Maman Cochet, Marie van Houtte, Dr. Grill, Princesse de Sagan, and Yvonne Gravier. These plants were grafted on the seedling Briar. I have observed that similar plants from the same nursery, when planted in a Sussex garden some 500 feet above the sea, made much larger growth and yielded finer blooms, in fact, the finest I ever saw. Here the natural soil appeared to be heavy clay loam of great depth, and the rainfall was in excess of that of Kent.

"The Tea Roses that I have struck on their own roots were got by inserting ripe growths from my own plants in the open during September. The few that lived made but weakly growth, and, although some five years old now, are not so vigorous as the grafted plants in my old beds. I have tried striking them in both well-manured ground and ground not specially manured, this latter being kitchen garden soil which had had no manure for more than two years. There was no apparent difference in growth. All the own root plants of the Tea Roses must be described as poor and weakly in growth. La France and Caroline Testout, on the contrary, have succeeded with me well on their own roots, and five year old plants are now vigorous bushes. Here, then, is a record, for what it is worth, of my experience, not my opinion, mark you. The only opinion I have arrived at about Roses is that they require a very large quantity of rain-water."

"SYDNEY SPALDING."

ORIGIN OF OUR ANCIENT WHITE DAFFODILS.

THE native habitats of the Daffodils of Haworth's day has always been an attractive subject to the writer, and none more so than the numerous white varieties. *N. moschatus* of Mount Perdu some have thought to be the parent form. I am inclined to vote for *N. variiformis* of Parkinson. The two wild plants grow at no great distance from each other, and there is just a possibility that some ancient hybridiser may have worked with these two geographical varieties. Should they have originated from one of the two I know of no wild Daffodil from amongst which you may select flowers of *N. variiformis* that so nearly fit in with such ancient forms as *N. tortuosus*, *albicans*, *cernuus*, *Ida*, &c. The trumpets of *N. variiformis* present counterparts to those I have named. The tinge of yellow on the frill of the trumpet of *Ida* I have not yet matched, but may do so, as I have thousands yet to flower of collected bulbs of *N. variiformis*. The shape of the perianth can be matched of all the white

Daffodils of ancient forms I have yet seen, but a few points more sulphury and more flimsy in *N. variiformis* than in those much-prized varieties of white Daffodils. Many years ago when I reintroduced *N. variiformis* I made a careful selection to grow on as distinct, but, like nearly all wild Daffodils, *N. variiformis* does not like garden culture, and they all died. At this time Mr. W. Buckhouse's and Mr. Edward Needs' fine seedlings came into my hands, and the lesser had to give place to the greater, and only now have I had the opportunity to daily watch the opening flowers of this beautiful mountain Daffodil, and I commend it as superb for naturalisation. This promises to be a good flowering Daffodil season, and there is no doubt many readers of THE GARDEN have *Narcissus variiformis* in their Daffodil collection. I hope some of them will look into the question I have raised and give your readers the benefit of their opinion, and throw such light as they may possess on this very interesting subject.

Kirn, Scotland. PETER BARR, V.M.H.

ENGLISH v. AMERICAN APPLES.

I AM much interested in the discussions of British fruit-growing published in THE GARDEN. I think it would pay your growers to study the co-operative methods of packing, grading, and shipping practised on the Pacific coast. Oregon Apples, packed in bushel boxes, sell here for the highest prices, beating New York State growers on their own ground. I do not think the actual quality superior, but they are so beautiful, perfectly graded, and in convenient packages.

EMILY TAPLIN ROYLE.

Maywood, N.J.

I FANCY myself a judge of Apples. I stole them as a boy whenever I got the chance, and I always found them delightful. I still think that Apples are the best fruit grown, but I do not often get hold of so good an Apple as those were when I was a boy. A few years ago I was in Canada, and on my way home I passed through Nova Scotia, staying one night with the Hon. W. Owen at Bridgewater. It was at the end of September, and during the night there was a frost. In the morning, before breakfast, I asked my host to take me out into his orchard and let me pick some Apples for myself. The trees were sparkling in a frosty dress and the sun was shining when he took me to a tree which was loaded with red-tinted fruit. I picked and ate one of the Apples, and I never tasted anything better in all my life. It was even better than the

stolen fruit of my childhood. I asked what was its name; he replied, "Gravenstein." His brother promised to send me a barrel over to London later in the year, and he kept his promise. People who say, "Ah, I will send you something later," generally forget. He did not. When the barrel arrived the Apples were bruised and tasteless, and friends to whom I had related my delightful Nova Scotian experiences said, when they tasted some of the fruit, "Well, I don't think much of your Gravensteins." I admit they were not the same thing. A Gravenstein is too delicate a fruit to travel. It must be picked off the tree.

Soon after my return to England I planted some cordon Gravensteins in my little Yorkshire garden. They have not borne any fruit yet, but I live in hope. A gardener without hope must be a miserable sort of person I should think. I have lots of hope, and sow it with the seeds in the spring, and I scatter it freely in the holes in which I plant my cordons.

I wonder if the Gravensteins will do well in my Yorkshire soil. I think so. I hope so. If they do not, however, I believe that I shall have to go back to Bridgwater, Nova Scotia, to pick some more and eat them where I pick them. That is the way to eat a Gravenstein. EON.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

April 25.—Royal Horticultural Society's meeting; Chesterfield Flower Show.

May 9.—Royal Horticultural Society's Meeting.
May 11.—Royal Gardeners' Orphan Fund Dinner.

May 17.—Royal Botanic Society's Exhibition.

A Coloured Plate of *Rosa moschata* nivea will be given with THE GARDEN next week.

Royal Horticultural Society.—At the meeting held on the 11th inst., Mr. T. J. Powell of Henley-on-Thames gave a lecture on "Retarded Potatoes," which was illustrated by photographs and actual specimens. The next exhibition and general meeting of this society will be held on Tuesday next (Easter Tuesday), when lectures will be delivered by M. Albert Maumené on "Japanese Dwarf Trees," and by Mr. James Hudson, V.M.H., on "Japanese Gardens in England." A fortnight later, May 9, lectures will also be delivered on "Japanese Horticulture and Gardens," by Mr. N. Hayashi and Mr. R. E. Farrer. Mr. Hudson's and Mr. Farrer's lectures will be illustrated with lantern slides, and as Japanese plants in England are at their best during this time the council hope that there will be a fine and representative exhibit of Japanese plants of all kinds.

Belvoir Castle spring flowers.—These are now opening quickly. Already the Polyantheses, Ericas, Daisies, Aubrietias in variety, and others make the garden look gay. The recent heavy snow and severe frost have not done any serious injury to them, but the full display is somewhat delayed in consequence. They will probably be at their best during the last week of April and the first week in May. The flower gardens are open to the public free daily.

Rhododendron racemosum.—Attention was drawn to this beautiful Rhododendron in THE GARDEN in 1892, when it was a new introduction, and since that time mention has been made of its attractive character on several

occasions. Although it has been in commerce now for fifteen years or so, it cannot be said to be at all a common plant, for, although it is in many gardens, we do not find it in quantity, while it is one of those shrubs eminently fitted for culture on an extensive scale. For gardens where peat-loving shrubs thrive it is the sort of thing to plant in large masses, for, although single plants are very pretty, it is when seen in quantity that its true worth becomes known. At Kew several good-sized patches may be seen through April in flower. The species is a native of Western China, and though it grows upwards of 2 feet high, it blooms freely when but a couple of years old and but a few inches above the ground. The leaves are oval, 1 inch to 1½ inches long, deep green above, and white lavishly dotted with brown on the under surface; the blossoms are small, ½ inch to ¾ inch across, and may be either white, delicately shaded with pink, or rich rosy pink in colour. They are borne several together, principally from the axils of the leaves, branches of last year's wood looking like racemes of flowers. At present it is catalogued at rather high prices, which is a pity, for it can be raised in quantity from seeds, and matures more quickly than most Rhododendrons. Were it to be obtained in quantity at a reasonable rate it would be excellent for forcing for conservatory decoration. It is figured in the *Botanical Magazine* t. 7301.—W. DALLIMORE.

Rhododendron Rhodora.—Although a very old plant it is not at all common, being rarely met with in cultivation. It is a deciduous shrub from North America, and found in Canada, Newfoundland, New York, and Pennsylvania. It is said to grow on the sides of mountains in boggy ground, and there to attain a height of 2 feet; here it grows quite 3 feet or more high. The leaves are oval, thin in texture, and whitish beneath. The flowers are borne in April in advance of the leaves, are pale purple in colour, and borne in terminal heads. For a group in the front of a shrubbery it is well worth a position, and in places where shrubs are made a speciality of it ought certainly to find a place. Since its introduction in 1767 it has been known under a variety of names, two of the most common being *Rhododendron canadense* and *Rhodora canadense*.—W. D., *Kew*.

Narcissus Duchess of Westminster.—This Daffodil may well be named the Queen of the Leedsii section. No variety is more effective when out. The pure white tapering perianth and long soft canary cup, which is slightly tinged with orange when first expanding, form a delightful contrast to each other as well as to the glaucous foliage. A mass of this arranged with trails of a dark-coloured Ivy or Berberis foliage is a handsome object in a dwelling-house. The growth is vigorous, and in stiff soil the bulbs do not need transplanting for several years.—E. M.

TO A GREAT ROSARIAN.

THE LATE MR. WILLIAM PAUL.

LOVER of Nature, whose long life hath made
Her forms more lovely with thy glorious art;
Is it not meet that thou at last art laid
Beneath the flowers, within her gracious heart?
LOVER of peace, the twilight of whose years
Was brightened by the rays of noblest love;
With her, who left thee in a mist of tears,
Thou walkest, gazing on God's heights above!

April 7, 1905.

DAVID R. WILLIAMSON.

Aubrietia A1.—I look upon this Rock Cress as much the best of dark-coloured varieties yet raised, and Mr. Prichard is to be congratulated on his success in obtaining such a fine form. The blossoms are 1 inch in diameter, freely produced, as the plant grows vigorously, and is well clothed with foliage, which makes a good contrast to the blossoms above. The colour is a deep violet-purple, especially intense when first opening

which is the reverse of some varieties. As good as Dr. Mules, the new comer is a distinct advance in Aubrietias.—E. M.

Narcissus maximus.—This is one of the best of Daffodils for general use, either in a growing state or for cutting. In a stiff, stony soil it grows luxuriantly, producing vigorous foliage. It is said by some that farmyard manure freely given is no advantage, but I find the opposite to be the case. The rich deep golden yellow colour of both perianth and trumpet enhances this variety for vase decoration, being a colour that contrasts so well with other foliage than its own. Planted in the herbaceous border, even at the back of a 12-foot space, this variety serves well to brighten up that portion of the garden before the regular occupants have made much progress.—E. M.

Melanthus major flowering.—We were interested in the paragraph appearing in THE GARDEN of the 8th inst., under the above heading. A plant trained against a wall in a cold unheated house in our nurseries is at present carrying several very fine spikes of flowers. It was planted out about twelve months ago, and although during the past winter it has been subjected to several degrees of frost, it has not suffered in the slightest degree. At the present moment we cannot recall ever having seen *Melanthus major* in flower before. As your correspondent suggests the experience of other growers would be interesting to many readers of THE GARDEN.—WEBB AND SONS, Wordsley, Stourbridge.

J. Maddern, Torquay, wishes to know if this fine plant flowers in the open elsewhere than in Torquay. I have often had it in flower here; but as it flowers on the last year's wood, it does not bloom when the plant dies down in a cold winter.—REV. CANON ELLACOMBE, Bitton.

Ceanothus veitchianus.—In giving selections of hardy shrubs for flowering under glass during the early spring months, one is often asked to name some that will furnish a decided break away from the lighter colours, which constitute the bulk of those used for the purpose. Such an one is to be found in *Ceanothus veitchianus*, of which a specimen in the temperate house at Kew well shows its value for greenhouse decoration during the months of March and April, for the entire bush is covered with dense clusters of rich bright blue flowers, and forms one of the most striking features in that structure. Though it is not much grown, this species of *Ceanothus* usually figures in Messrs. Veitch's group of hardy shrubs at the Temple show. It is a native of California, and was one of the many different subjects introduced by William Lobb when collecting for Messrs. Veitch in that district some fifty or sixty years ago. The leaves are small, and of a rich deep shining green tint. This *Ceanothus* is decidedly tender, and even in the latitude of London needs the shelter of a south wall, but even glass protection is well repaid by a fine display of its charming blossoms.—T.

Impatiens Holstii.—Under this name a very beautiful member of the Balsam family is in flower in the T range at Kew. Whether of garden origin or not I cannot say, but the general appearance of the plant suggests *I. Sultani*, except that it is more spreading in growth than the typical form of the older kind, which, however, in the purple-flowered *Episcopi* (regarded by some as a distinct species) has a variety far less upright in habit than the type. The prominent feature of *I. Holstii* is the colour of the blossoms, which are of a bright vermilion-scarlet tint, on which account they stand out very conspicuously from all the others. Apparently like the rest, of easy propagation and culture, this Balsam will, no doubt, soon be extensively grown in many gardens where greenhouse plants find favour.—T.

Templetonia retusa.—Half a century ago this Australian shrub was more often met with than it is to-day. It was then a favourite subject for growing into specimens which at that time were so much admired. Like many of the New Holland plants it belongs to the natural order Leguminosæ, and forms a rather upright growing shrub, clothed with oblong-shaped leaves, about 1 inch in length, and of a somewhat glaucous hue; indeed, the species under notice is sometimes known as *Templetonia glauca*. The flowers in appearance and colour suggest a small form of the Coral Tree (*Erythrina crista-galli*) and are borne for some distance along the shoots. When at their best the plant is not only ornamental but very pleasing. A specimen about 3 feet high planted out in one of the beds in the temperate house at Kew is just now in full flower. For pot culture the soil generally preferred consists of two parts fibrous peat to one part loam, and rather more than half a part of sand.—T.

A beautiful hot house climber (*Asystasia scandens*).—It is a long time since I saw this delightful stove climber in as fine a condition as it is just now in the T range at Kew, where, trained to a rafter in the stove, it is flowering profusely. Being a native of Sierra Leone the warmest part of the stove is necessary to its well doing, and it also needs a good amount of atmospheric moisture. It was introduced in the year 1845, but at that time and for long after was known as *Henfreyia scandens*, now merged into the genus *Asystasia*. The flowers, which are borne in clusters along the shoots, are somewhat trumpet-shaped, nearly 2 inches long, and of a creamy-white colour. Though belonging to the family of Acanthads the individual blooms bear a certain amount of resemblance to a Bignonia. A second species, *A. bella*, formerly known as *Mackaya bella*, introduced from Natal about thirty-five years ago, is a pleasing shrub for the warm greenhouse. In this the flowers are lilac marked with purple. To induce this to bloom freely the wood must be well ripened by exposure to the sun towards the end of summer and in autumn.—H. P.

Tufted Pansy Mrs. E. A. Cade.—This Tufted Pansy is already flowering freely in different parts of the country. The rich bright yellow rayless flowers are very fragrant. It flowers almost continuously. The growth is robust, one year old plants making sturdy tufts, which, if lifted, may be broken up into several pieces, and the stock is perpetuated freely in this way. The flowers of this variety are carried on erect foot-stalks, just above the foliage, and are of good substance. It is a long time since we had a Tufted Pansy of this colour.—C. A. H.

"How to Use Nitrate."—Nitrate of soda is such a valuable fertilising agent that many will, doubtless, be glad to hear of the book "How to Use Nitrate," which gives practical hints for the profitable application of nitrate of soda as a fertiliser, derived from recognised authorities. It contains also a lecture on "Some Points in Artificial Manuring," by Dr. Bernard Dyer. The publishers are Messrs. G. Street and Co., Limited, 30, Cornhill, E.C.

Notes from a Yorkshire garden. The Almond blossom and that of *Prunus pissarri*, so beautiful in Surrey gardens in mid-March, are not out yet, but in many ways we do not seem to be much behind our Southern friends this year. It is now Daffodil time. The dainty *Pallidus præcox* opened on the 12th ult. in the hedge bank facing north, and was soon followed by an early bloom or two of the Tenby and Golden Spur, but it is only now, in the opening days of April, that the golden cups are beginning to expand in hundreds. Golden Spur is a very rich, deep colour, and one of the finest of the large trumpets, superior, I think, to Ard Righ. Close by a group of these tall, handsome sorts is the small but well-shaped rich golden Tenby Daffodil (Obval-

latis); and beyond a patch of *Princeps* may be seen a little group of *N. minor*, the diminutive flowers are set off against the grass in which they are planted. Near by are such early varieties as Queen Bess, with light yellow cup and white, open perianth, and a welcome variety among the deep yellows and long trumpets. In a vase it is very pretty. The old *Telamonius plenus* is also in bloom, soon to be followed by the doubles in the *Incomparabilis* group, Butter and Eggs, &c. Sir Watkin is in full bud, and will be followed by the host of mid-season Daffodils—*Cynosure*, *Leedsii*, *Burbridgei*, *Stella*, *Barrii*, *Conspicuus*, *Emperor*, *Empress*, *Nelsoni*, and the *Poet's* group, to be gently laid aside as the sweet-scented double white and the stalwart *Narcissus bicolor* come into bloom. Finer blooms, and certainly more expensive ones than the above-named sorts, are to be seen in large and favoured gardens. I have a few, but the glorious effect of masses of these fine old sorts that I have named is much more satisfying than that produced by a few specimen blooms in threes and sixes. When one has a group of fifty it is possible to cut a dozen of one sort and never miss the flowers from the garden. When cut in the bud the flowers open clean and fresh, and remain in good condition for days, especially if taken out of a hot room for the night and given frequent changes of water. Our soil suits all sorts of Daffodils. It is a good, strong loam, and never gets very dry. Some are in grass and some in borders, but there they remain year after year and multiply.—W. J. BEECHWOOD.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, W.C.

A VARIEGATED HONESTY.

Mr. Clive H. Meares, Newport House, Warley, Essex, writes: "Anything which will brighten up the garden during the dull winter and early spring days will, I am sure, be much appreciated by flower lovers. For many months beds containing bulbs are dead and lifeless, and the herbaceous borders have few plants except, perhaps, Carnations to lend a colour to their dull monotony. I am sending you a few leaves of a plant which, for winter and early spring border decoration, is, I think, quite unique. It is a wonderfully variegated form of the common purple Honesty (*Lunaria*). As you will see, the leaves vary from pure creamy white to green, with the margins beautifully picked out in cream, cream and green, and cream and pink. The old Honesty is not a very attractive plant, except when in flower, as its leaves have a dull green, oily look about them, but in this type, which I have named *Lunaria variegata Clivei*, the leaves are more prettily shaped, beautifully lacinated, and of a rougher and more uneven texture, which adds greatly to their beauty. A few leaves come quite pink from the roots. A bed of this plant has an almost tropical appearance, as the plant resembles some of the beautiful *Coleuses* or the foliage *Begonias*. They show their lovely variegations even in the seedling stage, and the more matured they grow the lovelier the variegation becomes, except, perhaps,

for a month or two after planting, when the extra vigorous growth which then takes place checks the variegation for a time, after which it becomes fully developed as the plant reaches maturity. The original of this came up as a chance seedling about six years ago. Of the seeds sown (which are abundant), about 10 per cent. came variegated, and all others were ruthlessly destroyed. In the second generation 25 per cent. came true, all the common type being destroyed before flowering each year; the third generation showed about 35 per cent. true; the fourth generation 70 per cent. came true; and this year I think at least 85 per cent. to 90 per cent. will come true, as in the fourth generation, although only 70 per cent. were worth saving, every other one of the remaining 30 per cent. came more or less marked except three plants. The plant is quite hardy, the leaves nearest the base being least marked, and gradually growing more pronounced till the leaves around the flower crowns exhibit every shade of green, cream, white, and pink. You can imagine its making, in my opinion, the choicest and most beautiful hardy winter bedding plant ever produced. What do you think of it?

[An interesting variegated *Lunaria*.—Ed.]

PRIMROSES.

Mrs. Augusta de Lacy Lacy sends a boxful of delightful Primroses for variety of colouring, and known as Dean's hybrids. Our correspondent writes: "They grow in great profusion, but the sparrows seem to have a particular fancy for the blue and dark-coloured sorts. The borders are quite brilliant with these Primroses, Hyacinths, *Narcissus Stella*, Wallflowers, and Anemones." The colours of the Primroses are very fresh and distinct, a beautiful race.

PRIMROSES FROM ST. ASAPH.

Mr. W. A. Watts sends from Bronwyf, St. Asaph, flowers of many beautiful Primroses and Polyanthes. The colours were very rich and distinct, especially those of yellow and orange shades. Our correspondent says that the plants have been in bloom all the winter, but are now approaching their fullest beauty.

IRIS STYLOSA AND HELLEBORES.

Miss Ella Friend, Bower House, North Cray, Kent, sends flowers of the fragrant delicately-coloured *Iris stylosa* and of the Eastern Hellebores, which charm with their soft and purple colouring, with dark spottings sometimes on a white ground.

WEBB'S CINERARIAS.

From their seed grounds at Wordsley, Stourbridge, Messrs. Webb and Sons send a selection of flowers of their superb strain of Cinerarias. They comprise many rich and distinct shades of colouring, e.g., bright blue, royal purple, crimson, magenta, blue and white, crimson and white, &c., and are excellent examples of the finest present-day Cineraria flowers, the result of careful selection and hybridisation.

VIOLETS FROM OXFORD.

"C." sends a delightful gathering of hardy flowers from Oxford, comprising chiefly Violets in many varieties, with the following cultural note: "Violet growing is so simple that anyone may have plenty. I think the secret of success is to have a very deep root run—at least it must be 18 inches deep, but will be better if 2 feet or more. I dug up a Violet with the roots 2 feet in length last year. Plant double varieties in the shade and the single ones in the brightest sunshine. After flowering I destroy the plants and dig the ground deeply and make it very rich, then I plant some runners and pull the older plants to pieces. There they stay. A few flowered last December, and will continue until

the middle of this month. I do not move the plants again, and never water them. The flowers may be much larger in some gardens, but none are sweeter than mine. It is delightful to see the sheets of colour. I give the details of my very simple way of growing the Violets to help those who like myself cannot spare much time."

ANEMONE FLOWERS FROM BOURNE.

Messrs. Gilbert and Son, the Anemone Nurseries, Dyke, Bourne, send flowers of *Anemone Pulsatilla* and seedlings, and forms of *A. fulgens*. Of the beautiful Pasque-flower, *gigantea* is conspicuous for its large size and tender colouring; but several varieties were sent, some of great distinctness. *A. fulgens græca oculata* is very beautiful, and *A. St. Brigid* shows a wonderful diversity of shades. An interesting and charming variety of Anemones.

ARUNDINARIA NOBILIS FLOWERING.

Captain Daubuz, Buckingham Villa, Ryde, Isle of Wight, writes: "I notice in THE GARDEN of the 1st inst. a letter regarding the flowering of *Arundinaria nobilis* in Guernsey. I am sending you some bloom off my large plant here, which is about 10 feet through, and many canes are 25 feet high. It was raised from seedlings thirty-five years ago, when a clump in the same position flowered and died. I cut about eighty canes in a flowering condition last autumn, and could now cut 120 more laden with flowering sprays such as I am sending you. The remaining half of the clump will, I fear, go in the same way this summer, and you will no doubt hear of many similar cases, as thirty-five years ago plants of *A. nobilis* flowered all over Great Britain."

HARDY SPRING FLOWERS.

From the Hardy Plant Farm, Winchmore Hill, Mr. Amos Perry sends a most interesting lot of flowers all gathered from the open ground. They include the White Glory of the Snow (*Chionodoxa*, *Lucilæ alba*), *Viola odorata* Rose Pearl, *Arabis alpina plena fol. var.*, *Cardamine trifoliata*, *Aubrietia tauricola alba*, *Corydalis cava albiflora*, *Æthionema iberideum*, *Trillium sessile* Snow Queen (sweetly scented), *T. s. californica*, and *Euphorbia Wulfeni*.

APPLE COX'S ORANGE PIPPIN.

We have received fruits of Cox's Orange Pippin Apple from "Sex," a Surrey gardener, who writes in praise of this variety. The fruits were certainly excellent eating, although they had to some extent lost their juiciness. So far as appearance is concerned, however, they had not deteriorated.

IRIS TINGITANA.

Mr. S. W. Fitzherbert kindly sends a flower of this beautiful Iris with the following note: "I have again, happily, to record success with this beautiful Iris. This year eleven out of twelve bulbs have flowered with me. The first expanded at the end of February, and the last will be open in about a week's time. This Iris often proves an extremely difficult subject to flower, and I know certain gardens where, though it has been established for many years and makes vigorous growth, it has never produced a single blossom. At the end of March, 1902, I saw a bed at Rosemorran, near Penzance, with seventeen expanded blossoms. A reproduction of a photograph I took of this bed appeared on page 41, Vol. LXIII. These Irises, as I stated at the time, were growing in deep, porous soil, which was heavily manured 1 foot below the surface. In the autumn the owner kindly gave me some bulbs, which I planted in prepared soil overlying a heavy dressing of rotten manure. The next spring several of these Irises flowered and I left them undisturbed. Last year, however, not a single bloom appeared. I therefore lifted them after the foliage had died down and dried them. Early in November I prepared a bed in a site

absolutely sheltered from the north and east, placing a deep layer of rotten manure 9 inches below the surface, and incorporating with the compost, which consisted of leaf-mould, loam, and road-grit, a liberal allowance of old Mushroom-bed manure. Selecting a few of the largest of my bulbs, and adding some others I had received, I planted a dozen, all of good size, and that they appreciated their environment is shown by all but one flowering. This autumn I shall follow the same plan, but whether another such success will be recorded in 1906 it remains for the future to prove."

STOVE & GREENHOUSE.

A BEAUTIFUL NEGLECTED GREENHOUSE FLOWER.

(*CROWEA ANGUSTIFOLIA*.)

AN award of merit was given to this greenhouse plant on the 28th ult., when shown by Messrs. James Veitch and Sons, Limited, Chelsea, before the Royal Horticultural Society. It is not new, but it is a good plant that has been neglected.



VANDA HOOKERIANA GROWN ON A LAWN AT SINGAPORE.

Now that it has been brought so prominently into notice, it is to be hoped it will be more widely grown. The *Croweas* are most useful plants for decoration; they are of such a graceful habit of growth. They must be grown in a cool house that is well aired, but not draughty, and they need careful watering. They are propagated by cuttings, which will root if given slight bottom-heat and a light sandy soil. *Croweas* succeed better if grafted on *Correa* or *Eriostemon* than on their own roots. *C. angustifolia*, which is shown in the accompanying illustration, is a very pretty and elegant plant, with pink star-shaped flowers on slender shoots.

WORK IN AN AMATEUR'S GREENHOUSE.

It used to be a family tradition in former days that our Ferns must be repotted in February, and, if the golden opportunity were allowed to

slip, then the Ferns must wait until another February came round. This opinion has been largely discounted as years have gone on. Nevertheless, it is better to repot Ferns just before active growth begins, and the time fits in, besides, very conveniently before the busiest seed-sowing and pricking-out season is upon us.

Not every Fern will require repotting every year. If the roots are not potbound it is sometimes just as well to leave them alone for another season. Small plants will repay a shift into pots a size larger, and, if necessary, these may again be repotted about July. As a rule, amateurs use larger pots than are necessary for all kinds of plants. Watch an experienced man potting, and he may often be seen—in alarming fashion to unpractised folk—reducing the ball of earth and roots before replacing the plant in a clean pot of the same, or very slightly larger, size to that from which it was taken. In potting Ferns it is well before beginning to have everything ready at hand—clean pots, sheards, and soil—as the roots are delicate, and soon get dried up if left lying about exposed to the air, which is very hurtful. A compost made up of ordinary potting soil or loam, with the addition of some leaf-mould and a little peat and sand, suits Ferns admirably.

Maidenhairs (*Adiantums*) produce many crowns, and these can be pulled apart without difficulty with a little bunch of roots attached to each crown, and, potted singly or two or three together, will soon grow into good plants. With a large Maidenhair one need not hesitate, if necessary, to divide by making a clean cut with a sharp knife right through the roots. Ferns like *Nephrolepis exaltata*, which push out stolons from the base of the fronds, are easily propagated by these, care being taken that a few growing roots are attached to each runner. A bell-glass placed over the little pots containing these divisions will help them greatly, but if neither bell-glass nor Wardian case should be at hand an improvised cover made of thin oiled paper stretched on a light wooden frame, which can be put together by anyone with a little ingenuity, is an excellent substitute. Ferns are most accommodating as to temperature. Many tropical species will succeed admirably without much artificial heat, such as the above-named *N. exaltata*. But they do like a still and rather moist atmosphere, and are the better for standing on a damp surface of sand or fine gravel rather than on the usual open shelves of a greenhouse stand. The amateur has sometimes to make the best of circumstances as they are, but a little contrivance will often go a long way towards improvement when these are manifestly unsuitable. Spring is a happy season, however, when few things can help growing, and mistakes or scant appliances are of less account now than at any other time of year.

K. L. D.

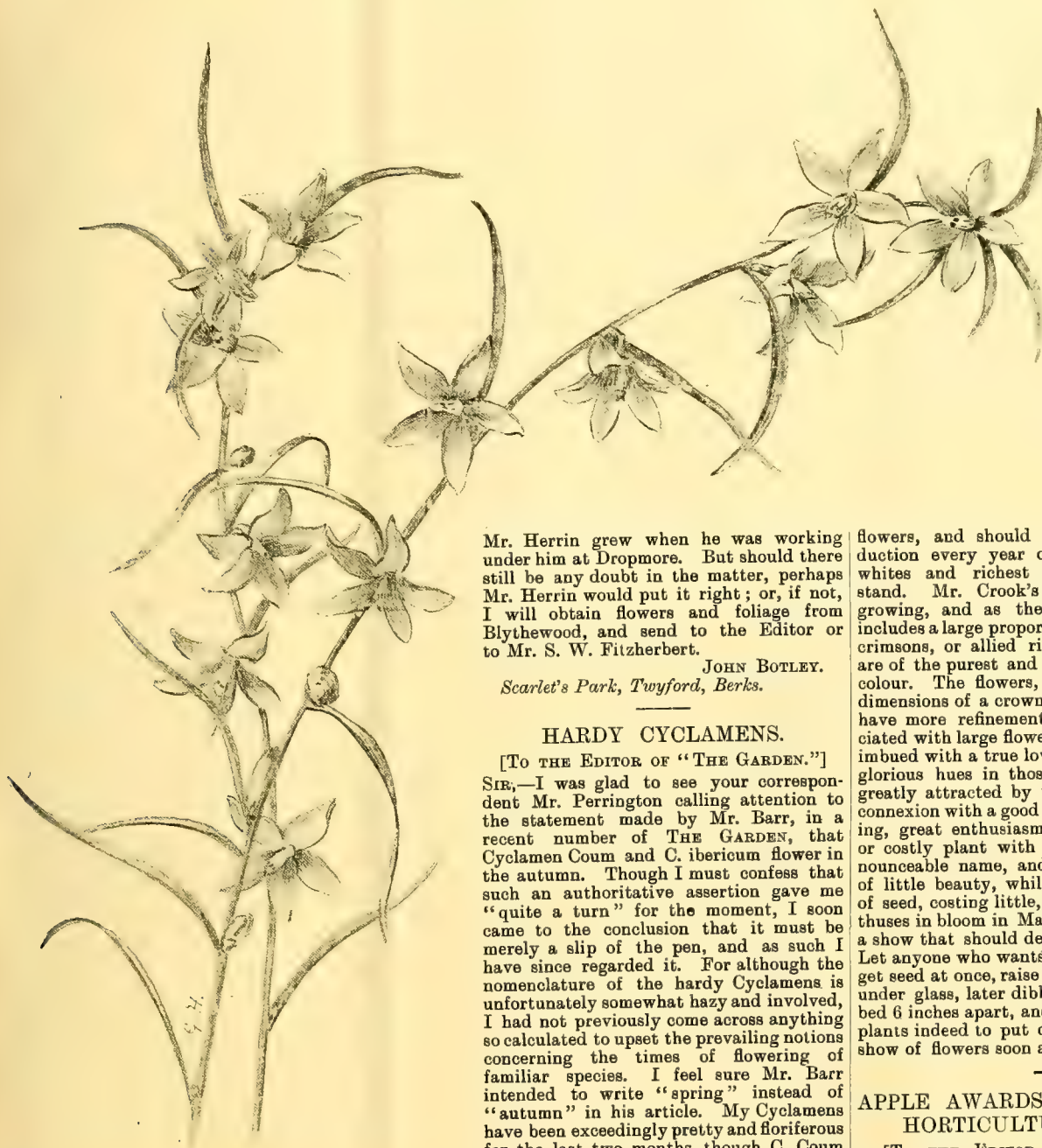
CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

ORCHIDS ON THE LAWN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It may interest your readers to see pictures of *Vanda teres* and the *V. hookeriana*, which grow in large clumps on the lawns at Broadfields, Singapore, Straits Settlements. *V. hookeriana* is indigenous to the Federated Malay States, and is locally known as the Kinta weed, for in the State of Kinta it grows wild, but alas! is not to be found in such profusion now as formerly, for the Orchid-hunters have found out the secret places where these wild Orchids grow. In their natural state they grow in damp marshy places, their roots liking the damp soil, but their heads liking the brightest



A BEAUTIFUL BUT NEGLECTED GREENHOUSE PLANT.
(*CROWEA ANGUSTIFOLIA*.)

sunshine possible. In my picture of *V. hookeriana* the Orchid is in seed as well as in flower.

ANNIE F. STRINGER.

[We reproduce one of the photographs—*V. hookeriana*.—ED.]

ANCHUSA ITALICA (THE DROPMORE VARIETY).

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have taken a great interest in the notes in *THE GARDEN* about *Anchusa italica* (Dropmore variety), from the various writers, and having, previous to coming here, lived as foreman at Blythewood in charge of the borders where it grew, I may say the variety there was given to Mr. Hubbard by the late Mr. Frost of Dropmore many years ago. One of the men at Blythewood said it was the same that

Mr. Herrin grew when he was working under him at Dropmore. But should there still be any doubt in the matter, perhaps Mr. Herrin would put it right; or, if not, I will obtain flowers and foliage from Blythewood, and send to the Editor or to Mr. S. W. Fitzherbert.

JOHN BOTLEY.

Scarlet's Park, Twyford, Berks.

HARDY CYCLAMENS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was glad to see your correspondent Mr. Perrington calling attention to the statement made by Mr. Barr, in a recent number of *THE GARDEN*, that *Cyclamen Coum* and *C. ibericum* flower in the autumn. Though I must confess that such an authoritative assertion gave me "quite a turn" for the moment, I soon came to the conclusion that it must be merely a slip of the pen, and as such I have since regarded it. For although the nomenclature of the hardy *Cyclamens* is unfortunately somewhat hazy and involved, I had not previously come across anything so calculated to upset the prevailing notions concerning the times of flowering of familiar species. I feel sure Mr. Barr intended to write "spring" instead of "autumn" in his article. My *Cyclamens* have been exceedingly pretty and floriferous for the last two months, though *C. Coum* and *C. Atkinsi* are now nearly over, and there are only a few plants of *C. libanoticum* in flower to go on with. The latter is a delightful species, with its handsome foliage and sweet pink flowers, and I wish I had more of it in my *Cyclamen* corner. S. G. R.

PRIMROSE-POLYANTHUSES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—On the 24th ult. Mr. J. Crook of Forde Abbey Gardens, Chard, sent me a box of his beautiful early-flowering Primrose-Polyanthuses. I call them such because many of the flowers first show the single stem Primrose habit, whilst others have the true cluster or Polyanthus form. The flowers came as a surprise, because so early in the first case, and, secondly, because so beautiful in colour. Forde Abbey is in a warm and sheltered place, but there are many gardens in which such brilliant flowers could be had just as early and of as fine form and rich colouring. Mr. Crook has made a speciality of these early spring flowers, growing thousands of plants each year, and

by continuous selection from the finest and richest coloured from year to year he has one of the best strains to be found in the kingdom. Seeing how readily these plants seed and how readily they can be raised from seed, it is matter for surprise that such early flowers are not found in every garden. One great feature of the Forde strain is that it is rich in colour. Too often we meet with whites that are far from being pure, and yellows that are pale. So many of the flowers, too, are small and quite devoid of quality or effectiveness. Why those who thus grow these spring flowers should limit themselves to the inferior hues and poor

flowers, and should not select for seed production every year only the finest and purest whites and richest yellows, I cannot understand. Mr. Crook's strain, as I have seen growing, and as the flowers just sent show, includes a large proportion of deep reds, carmines, crimsons, or allied rich hues, while his whites are of the purest and yellows of the deepest in colour. The flowers, too, are large—quite the dimensions of a crown piece—and, besides, they have more refinement than is commonly associated with large flowers. Most certainly no one imbued with a true love for flowers could see the glorious hues in those before me and not feel greatly attracted by them. I fear there is, in connexion with a good deal of early flower gardening, great enthusiasm over some rather scarce or costly plant with a long and almost unpronounceable name, and, perhaps, having flowers of little beauty, while one might from a packet of seed, costing little, have hundreds of *Polyanthuses* in bloom in March and April, and making a show that should delight all true flower-lovers. Let anyone who wants such a show next spring get seed at once, raise it in shallow pans or boxes under glass, later dibble them out into a nursery bed 6 inches apart, and they will have very fine plants indeed to put out in October and give a show of flowers soon after. A. D.

APPLE AWARDS AND THE ROYAL HORTICULTURAL SOCIETY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Messrs. Cannell and Sons' suggestion that awards should be made to new Apples only by the fruit committee of the Royal Horticultural Society after they have had several years' growth in diverse places, harmonises entirely with my own views. As I have often felt when voting for such awards—a practice under existing conditions unavoidable, unless one is to stultify one's position as a member of the committee—there is the danger that the award may in the end prove wrong and be wasted on an inferior variety. But the suggestion applies equally to all fruits, for out of all that receive awards in a year probably one-half to two-thirds in a few years' time are worthless. When the committee have sometimes gone so far as to make awards to old-established and certainly first-rate varieties, they have been blamed for so doing; but still, what they have done is to recognise the results of many years' experience. The whole crux of the matter lies in the fact that any award from the committee, whether it be a first-class certificate or an award of merit, means added value to the thing thus honoured; it means

also money to the person holding the stock, and when new varieties are thus presented to the committee the dominant object is to enhance the pecuniary value of the thing exhibited. No doubt Messrs. Cannell and Sons would honestly admit that in regard to the various novelties they present to one or other of the committees from time to time they are susceptible to similar influence. When I have objected to making an award to a new fruit on the ground that only the sender's commendations, and usually very optimistic ones, are before the committee, and that a trial at Wisley or elsewhere was needed before any exact judgment could be formed, I have been told that any award made then would be of no use to the vendor, who wants the award made at once for trading purposes. It is absolutely needful it should be clearly understood what are the primary objects in view in these cases, and how difficult it is under existing conditions to vary them. It is really a case for the Council of the society to deal with, but even that body is, I fear, more considerate for the pecuniary interests of the trade than it is for what is desirable in the interests of fruit culture. Had this suggestion of exacting trials extending over a few years of all new fruits been long since adopted, how many mistakes might have been saved. How many awards to fruits have been made during the past twenty years, that results have fully shown, have not been justified? I cannot adopt Messrs. Cannell and Sons' other suggestion that we should restrict our general culture of varieties of Apples to so few as from ten to fifteen. We have of old varieties alone far more really good ones than the Colonials have, and such a limit is needless. That we could do better with fifty varieties than we do with 500 is certain, but no one need, especially for commercial purposes, grow even fifty. Messrs. Cannell supply the reason why more than the few they name should be grown, and that is that some varieties are of far better growth and quality on some soils than on others, hence it is needful to have a good range of varieties to enable the requirements of all soils to be accommodated. What they assert in relation to the effects of diverse soil on Apples is doubtless true, but it is less so than is the case with Potatoes. Still an important fact is stated, on their authority, that must have weight—whether any variety of Apple is only good when gathered direct from the tree is of little consequence. Such varieties have small commercial value. A. D.

THE BEAUTY OF ANTIRRHINUMS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I quite agree with Mr. Burrell that the Antirrhinum is underestimated. Nothing is finer than a good bed of plants, but I do not agree with the early sowing of the seed and wintering the plants in frames. I have grown Antirrhinums for some years, and find that spring-sown seedlings do equally as well, and do not give so much trouble. Sow the seeds in heat about the end of January, and when large enough pot off the seedlings into 3-inch pots and treat liberally at all times. By the first week in May these will be good, strong plants for putting out, and as a rule they grow away freely at once. The plants wintered under glass may flower a little earlier, but the difference is not worth the extra trouble. Any good strain is suitable, but so far I have found Suttons' and Cannells' to be the best. Antirrhinums are one of the subjects which do well in the county of Lancaster.

Moorfield, Swinton, Lancashire. H. WEBB.

IPOMEEA RUBRO-CÆRULEA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I strongly recommend this beautiful climber. We have quite a number of plants this season, which we purpose potting on for running up bare posts and wires in the flowering house. We have no difficulty in raising it from

seed, as it germinates quickly and freely, and plants which are now in 4-inch pots are beginning to climb already. The blue *Convolvulus*-shaped flowers are very attractive. One fault I have with this climber is that the flowers do not last very long when once fully open; but, as Miss Mitchell says, it is so free flowering that one does not notice their fading so quickly. We intend planting it out in the open this summer.

BODORGAN.

THE STAG'S-HORN FERN GROWN IN A ROOM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Referring to your note on the Stag's-horn Fern, in *THE GARDEN* of February 4 last, I send you a photograph of a *Platynerium alcicorne* which has been growing for three years in the sitting-room of Mrs. Marcus. The room has a south aspect, with two windows, one of which is never opened. In the latter stands the plant. The leaves are never moistened except when they are washed. The plant is not exposed to the summer sun. This Fern wants a quantity of water and some artificial manure once a week.

Düsseldorf.

DR. ALFRED MARCUS.

DESTROYING FIELD MICE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—As an alternative, and, I think, preferable, method to that advised by your correspondent "J. A. T." in *THE GARDEN* of the 1st inst., page 190, I would suggest the following: Saturate a piece of rag with ether (ordinary methylated ether will do), push well down into the holes, and cover up with a piece of turf, or press some mould firmly on top. Ether vapour is heavier than air, and travels to the lowest portion of the tunnels. I have found this quite effective, and should imagine it to be less dangerous to surrounding vegetation than the fumes of burning sulphur.

Enfield.

A. D. FORT.

GARRYA ELLIPTICA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Several letters have appeared of late in *THE GARDEN* respecting the above shrub. May I be allowed to pen a few lines as to its treatment here at Bodorgan. In North Wales two fine specimens planted on a wall facing south-east were, two years ago, one mass of flowers; this last season the catkins were not so fine, owing, possibly, to being pruned a bit too hard back in the early spring. They have no protection whatever during winter, and the situation they are in is facing the sea, slightly sheltered by various other trees and shrubs, but not by any means dense ones. I have used these long-flowering shoots in the hall. Arranged in a large vase they make a nice contrast to the various brighter colours of other decorations. It is a shrub worthy of a place in every pleasure ground, even if protection must be given in winter.

Bodorgan.

G. S. JORDAN.

THE PURPLE SAXIFRAGE.

(*S. oppositifolia*.)

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am taking the liberty of sending you a photograph of a patch of purple Saxifrage (*S. oppositifolia*), which is at present in full bloom on my rockery, and has been much admired. I have seen this species growing on alpine rocks in many of our Highland mountains, adorning the crags of the Lake District hills, and also the summit of one of our Yorkshire Fells, but have had the greatest difficulty in establishing it on my rockery. I am glad to say, and I think you will agree with me, that the enclosed photograph represents a very well-grown specimen. *S. oppositifolia* has a habit of decaying

off in a most disappointing way, and when once the decay sets in it is impossible to stop it without taking up the whole plant, selecting the living pieces and replanting them in a compost of silver sand (gritty), leaf-mould, and fibrous loam, dibbling them into the compost almost out of sight. In this way I have succeeded in keeping my plants in good health. It prefers a south-west aspect, and when in full flower, directly after the disappearance of the winter snow, forms a lovely picture in the alpine garden. I have seen patches yards in extent on the summits of some of the Pyrenean peaks, where it attains a size and brilliancy, perhaps, unattainable in this country; but, nevertheless, our British species is not to be despised, as it opens its cheery ruby buds through the melting patches of April snow on the rocky crags of our native hills.

ALLAN HALL.

Southfields, Sowerby, Thirsk.

NOTES ON HARDY PLANTS.

HARDY CYCLAMENS.

LIKE Mr. Peter Barr, I have followed with great interest the articles on the hardy Cyclamens, and I hope to hear by and by the results of the experimental plantings Mr. Barr is going to make at Kirn. With some of the species I have every confidence that he will succeed; but with others I fear he will have less success to record, mild as is the climate there. I have tried all those mentioned by Mr. Barr in my garden here, and I can safely say that the most reliable are *C. Coum* and *C. neapolitanum*, the latter being the best of all. Although further south than Kirn, the climate here is not quite so mild, but I anticipate the experience will be much the same. *C. cilicium* I have from imported corms, and, although a few of these have perished, the others seem to have become established in light soil and broken mortar in a shady position under a good-sized tree of *Prunus pissardi*. The leaves are small, but prettily silvered, while the flowers, not so free as on some others, are a fair size.

C. libanoticum, although a fine species, and apparently hardy here through two winters, does not appeal so much to me as the smaller-flowered *C. Coum*, which I have had for a number of years. Its leaves are apt to suffer from wind, and if these go off prematurely the corm suffers. *C. europæum* I grew in a shady and dry position for three or four years. It, however, lost its leaves during one of the storms to which we are subject, and was eventually lost. It is, however, well known to be troublesome in our climate. *C. Coum* is very satisfactory in shade and in light soil mixed with old broken mortar. It seems to like this, and is the earliest to bloom here. *C. ibericum* and the *Atkinsi* varieties have lived for some years and then died off, just when one was prepared to look upon them as quite at home. I do not despair of eventually establishing them. *C. neapolitanum* is the best of the lot, and never fails one here in the same soil as *C. Coum*. *C. africanum* has very handsome leaves, and it passed through at least three winters with me at the base of a Lilac tree and in almost full shade. It is well worth trying, if only for its exquisite foliage.

C. repandum I have not yet succeeded in establishing permanently, although I do not despair of success with a little protection in early spring. *C. latifolium* I have not tried, but I flowered a very small and dainty little one called *C. alpinum* for some years. With regard to the soil and position they require, I do not think they like what is called "a fairly moist soil." They certainly like shade and plentiful occasional soakings of water in dry weather in spring and summer, but they must have the freest drainage,

and the use of old mortar helps them immensely. For brief directions nothing can be better than those embodied in Messrs. Barr and Son's catalogue of hardy perennials, and I can entirely agree with them from actual experience of these flowers for a number of years.

It always seems to me, however, that shelter from wind ought to be strongly insisted on, as I have seen the leaves twisted and blown off with apparently disastrous effects. The late Rev. C. Wolley-Dod years ago gave me much information about them—information which experience shows to have been correct.

S. ARNOTT.

SAXIFRAGA FERDINANDI-COBURGI.

A VERY pretty Saxifrage that should be in every collection is in flower in these gardens on the rockery—*Saxifraga Ferdinandi-Coburgi*. It was obtained from Sandermann of Bavaria, and is beautiful both in foliage and flower. The flowers are borne on spikes about 2 inches or 3 inches high; the buds are of a reddish hue, opening a pure bright yellow. The foliage is very silvery. It is easily propagated under a hand-light in a sandy mixture.

H. EAVIS.

Hindhead, Surrey.

[This charming little species is an introduction of recent years. It comes from Macedonia, and is found at high elevations growing in rocky fissures, forming neat tufts of somewhat silvery foliage, not unlike in general appearance the well known *S. aretioides*. It has, however, rather narrower and longer leaves, and is much more vigorous in habit, and is easily propagated by division or cuttings. Although yellow-flowered species are well represented amongst the early-blooming Saxifragas, this plant is quite distinct from any other, and well worth a place in the rock garden, where it flourishes in a sunny position planted in stony soil. It begins to flower during the early part of March with rich yellow flowers on stems about 2 inches high, succeeding buds which are suffused with red.—ED.]

SAXIFRAGA ELIZABETHÆ.

THIS early-flowering Saxifrage is blooming freely this season, and is proving, as one expected from its behaviour in the past, a great acquisition to our gardens in the earliest months. It has been said to resemble *S. burseriana* in its general habit, a description one cannot quarrel with, but it has yellow instead of white flowers, while the general aspect of the neat-habited plant is not at all the same even when out of flower. It may well be grown by those who cannot grow *S. Boydii* well, as it seems much freer than that most beautiful Saxifrage, which, however, seems to do much better with us in the North than in the South. It is a choice plant for the rock garden, alpine house, or frame, and under glass its flowers look clearer than outdoors. With me it has been cultivated in the open in two positions. In one it receives only partial sun, from about 11 a.m. to 1 p.m., and is then almost shaded. In another it has sun for the greater part of the day, and is in a drier place than the former plants. Those which only receive the sun for about two hours flower the most freely, and I think it rather objects to much drought at the roots. The many who admire the choicest Saxifragas should include *S. Elizabethæ* in their collections.

S. ARNOTT.

Carsethorn, by Dumfries, Scotland.

THE FRUIT GARDEN.

LATE PEARS.

WITH reference to late Pears, the belief was general at one time, and is more or less so still amongst gardeners, that to grow late varieties of Pears successfully the assistance of expensively built walls was an absolute necessity. It may not be amiss to recall the names of the varieties already mentioned in THE GARDEN as succeeding well under the ordinary conditions as bushes or pyramids: *Beurré de Jonghe*, *Beurré Rance* (see illustration), *Le Lectier*, *Bergamotte Esperen*, *Dana's Hovey*, *Docteur Joubert*, *Easter Beurré*, and *Doyenné Alençon*, the latter, and also *Bergamotte Esperen*, succeeding well as standards in the orchard.

Pear Passe Crassane.—As a variety ripe in late spring this is indispensable, and should be included in every collection. It succeeds well as

Intending planters of this Pear should be careful when ordering trees to stipulate that the true sort is supplied to them.

Duchesse de Bordeaux.—Although this variety has received the first-class certificate of the Royal Horticultural Society, I must say that with us it has been a disappointment and a complete failure as regards quality and flavour. It will keep any length of time, but instead of ripening up mellow and sweet it shrivels and dries most disappointingly. The same remarks apply to *Anna Nelis*, which from its many points of resemblance must I think be one of the parents of the above.

Josephine de Malines.—This superb variety is so well known and so generally grown that it need only be mentioned as one of the most hardy, prolific, and deliciously flavoured late Pears we have. It succeeds well in the open, and is best grown on the Quince stock.

Epine du Mas.—This is a very distinct, pretty, prolific, and moderately sized late Pear, and succeeds well as a bush or standard in the open. It is usually ripe early in January. Flesh white,



PEAR BEURRE RANCE (SLIGHTLY REDUCED).

a bush or pyramid, or even as a standard in the orchard, provided the ground it grows on is well drained and the position is fully exposed to the sun. When well grown it is a handsome fruit of good size, and the flavour is very rich, sweet, and decidedly aromatic. In cool seasons, and under neglected conditions of culture, the fruit is inclined to be rather gritty, but with generous treatment and an ordinarily bright sunshiny season the variety does well even as an orchard tree.

Ne Plus Meuris.—I am decidedly of opinion that there are two distinct varieties of this Pear in cultivation, one most excellent as regards quality, flavour, and fruitfulness, the other with more or less a gritty tissue, simply a worthless fraud. As an orchard Pear this variety is one of the most fruitful and satisfactory sorts we have, and, like *Doyenné d'Alençon*, it is much improved in flavour by being subjected to artificial heat for a few hours before it is wanted for dessert.

melting, juicy, and sweet, but without any distinct flavour.

OWEN THOMAS.

PROFITABLE AND UNPROFITABLE APPLES.

My remarks upon this subject will be confined to our experience with bush and pyramid trees, worked chiefly upon the Paradise stock, and planted in the autumn of 1893 upon good pasture land, after it had been properly drained and trenched to the depth of 2½ feet. The plantation consists of upwards of sixty leading varieties, and the trees are placed 12 feet apart each way. Care has been taken not to crowd the branches, and they have received both summer and winter sprayings with insecticides. Since they have become established manurial assistance in the form of artificial compounds has been afforded. Of course, it is out of the question to note here each kind that is grown, and only those that

have proved to be especially productive, and those also that are light croppers, will be referred to.

It is more gratifying to write of one's successes than it is to do so of failures, and for this reason the kinds of Apples that have hitherto proved to be most generally prolific will be first mentioned, and of these the culinary varieties may be first taken.

Frogmore Prolific was one of the first to crop heavily, and it has been remarkably constant in continuing to do so. It is very large, of excellent quality in September and October, and forms a symmetrical bush. Grenadier is another first-rate large second early Apple, a regular heavy bearer; it makes a perfectly shaped bush. Similar remarks apply to Cellini with respect to season and powers of bearing; it is also handsome, though not so large as the two preceding varieties. Seaton House, owing to its neat habit of growth and its extremely abundant bearing, is especially suitable for small gardens; a valuable late keeper of above medium size. Schoolmaster is likewise a valuable late-keeping kind, of good quality, and a constant heavy cropper, well deserving of general cultivation.

Belle Pontoise is a handsome good-keeping sort; it has, however, a spreading habit of growth, and appears to be more suitable for a standard than for a bush. Dumelow's Seedling (Wellington) deserves to be classed as one of the best from every point of view. Hornead Pearmain is an excellent late-keeping variety, and here was one of the few that cropped in 1903 when we, owing to Apples being scarce, found it valuable for dessert, as we did also Newton Wonder, which invariably crops well, and we class it as one of the best. Lane's Prince Albert is represented by thirteen trees, and has proved to be a most reliable cropper, though we have had trouble in making the trees creditable specimens.

(To be continued.)

THE FLOWER GARDEN.

THE JAPANESE IRIS.

APRIL THE MONTH TO PLANT.

MANY who have ornamental water fail to grow these Irises because of planting at the edge of the lake or pond, and frequently in the worst of soil. Such things are much safer 10 feet away from the water and in a bed of the deepest and richest soil, and with water so near are better generally raised above its level. Shade of a kind, not heavy or dense, is a matter of

considerable importance to these Irises. Indeed, were I forming what I should regard an ideal spot, I would ask for nothing better than a half-shady place where a border might be made, and where leaf-soil and manure could be given at will. With these at command there is no reason why the group in question should not be more frequently a success as ordinary border plants, particularly where a so-called damp border exists. I am not saying there are no known instances of success when given the semi-aquatic treatment, but I would content myself did the extreme roots touch the moisture. Plants that were perfectly happy beside a rippling rivulet might, rather I would say would, be almost sure to decline and presently vanish if planted in the sodden soil at the margin of a pond.

In short, where *Primula japonica* will spread out its rosettes of leaves to 2 feet or 2½ feet across, and send its giant whorls of crimson flowers as high into the air, there



IN AN IRIS GARDEN IN JAPAN.

also will these Irises thrive. A word as to time of planting. I am a great believer in spring planting for many Irises, the Flag Iris in particular, and equally those under notice, more especially when dividing is necessary. This with *I. Kämpferi* is less frequent, and less needful also if liberal mulchings of manure are furnished each year.

It is because many of these Irises are very enduring, and because they show so few signs of distress after planting that we are apt to overlook the results that follow. I have rarely seen a good display of Flag Irises in the spring following the planting of large pieces in autumn. Infinitely better results ensue when the work is done in April and good healthy pieces are planted, for these a year hence will flower with certainty. No water garden is complete without Japanese Irises in abundance.

E. J.

COLOUR COMBINATIONS WITH ANNUAL FLOWERS.

I AM constantly hearing complaints that many of the annuals sent out by good seedsmen are practically worthless. Certainly many are weedy and unsatisfactory, but most may be rendered more valuable by sowing thinly and by thinning out severely. Godetias are generally quite sure not to disappoint you, and the satiny rose-colour of the lady of that name makes a charming contrast with *Phacelia campanularia*, while the white Pearl Godetia can be placed near the *Linum grandiflorum rubrum*. Sutton's miniature crimson Godetia should be excellent combined with *Nemophila insignis* in the front of the border, or perhaps the more tender colour of the dwarf pink Godetia would be better still. The *Linarias*, though a little poor in effect, are gracefully pretty individually, and *L. bipartita splendida* and *L. dalmatica* look well massed together. They seed freely, and you will find another year they will make an appearance uninvited in the same place.

I have seen the wild Toad Flax grow so luxuriantly, and produce such fine spikes of yellow and orange flowers, that it would be quite as worthy of a place among our annuals as its rich relations. Again *Whitlavia grandiflora* is a very useful border annual, and not very commonly employed. It must be well thinned out, too, and can be combined with *Bartonia aurea* and dwarf white *Clarkia*.

I personally enjoy the rich blue of the *Convolvulus minor*, when blue flowers are so scarce, but its early closing habit and its uselessness as a cut flower makes me doubtful about including it among desirable annuals. Cornflowers, too, must always find a place. I like them with *Eschscholtzias*, though both require tying up on small sticks or supporting with branches. The dwarf blue Cornflower is much more amenable. I do not care for the white or rose varieties of the *Centaurea*, and some of the shades in a mixed packet of seed are quite dingy.

In a visit I lately paid to a Cambridgeshire garden I saw the wisdom of not lifting border Tulips. They are never disturbed there, and were showing their green noses in masses with fine promise for an April display. Indeed, in the same garden "let well alone" appears to be the motto, and a very good one too. Cambridgeshire is by no means a warm place, but *Dahlia* tubers are left in the ground year after year with excellent results. They are only protected by a covering of dead leaves, and what a saving of trouble this is. I used to lift *Montbretias* and *Gladiolus*, but now I leave both alone and all is well with them, and the *Montbretias* are a perfect weed.

AUGUSTA DE LACY LACY.

THE ROSE GARDEN.

CRIMSON RAMBLER ROSE.

SOME years ago two small plants were set out in a narrow border filled with various hardy flowers. They did not make much progress and had a sickly appearance. A well-known horticulturist coming in one day said: "Those Roses want plenty of manure, Crimson Rambler needs more food than any Rose I am acquainted with." I gave the plants a heavy dressing, and they at once grew away freely. A friend of mine planted this Rose on the grass in the usual way to cover a trellis; it was not doing at all well, so I advised him to cut away more of the turf and give a heavy dressing of manure. He did so, and with the best results. Wherever failures occur with this Rose they are pretty sure to be occasioned by lack of nourishment. Some of the old climbing Roses appear to be almost independent of nourishment, flowering abundantly year after year even in poor soil, but it is not so with Crimson Rambler, which absolutely refuses to move in poor ground. A good coating of farmyard manure or some concentrated manure put on in winter will restore failing vigour.

Byfleet. J. C.

ROSE BELLE-FLEUR.

THE large-flowered single and semi-double Roses have a distinct charm. I do not believe in planting Roses to produce violent contrasts; for instance, *Perle d'Or* beside *Paul Neyron*, but I think we might do more to add to the delight of our Rose gardens by grouping Roses of certain characteristics together, and with none would this be more applicable than the large-flowered single and semi-double forms. Take the charming variety under notice. Its fiery crimson colour, its wealth of golden anthers, and the

glorious large petals, combined with a perpetual-flowering habit, render it a Rose of much usefulness. Then there is *Maharajah*, another perpetual Rose with huge velvety crimson flowers, both worthy additions. We may probably see many such Roses appear, for the tendency of seedling

sinica hybrida *Anemone*; standards or half standards interspersed of *Bellefleur*, *Maharajah*, and *Gustave Regis*; and encircling these a ring of *Bardou Job* as bushes, and an outer ring of *Sulphurea*. Perhaps some of these are not available in the form mentioned, but they probably will be next season.

In any case the varieties named would group charmingly together if planted, say, 2 feet to 4 feet apart.

RED CAPTAIN CHRISTY.

I do not imagine there will be any great demand for this Rose. In the first place, it is scentless; then the shade of colour is not at all brilliant, and, besides, there are now so many red Roses. Yet I can imagine a mass of this variety would be very showy. We know the pink variety is all that can be desired as a bedding Rose, bold, effective, and free. The red Captain Christy reminds me of a good old Rose *Henri Ledechaux*, but it has not its very shapely bud. It is quite interesting to meet with some of these old Roses. Although they lacked perpetual flowering qualities, they were, nevertheless, very beautiful in their season. I should like to see some of these old Roses revived, especially the rich reds and crimsons.

P.

CRINUM RATRAYI.

WHEN shown by Sir Trevor Lawrence, Bart., at a meeting of the Royal Horticultural Society on the 28th ult., this handsome *Crinum*, a species introduced from Uganda, was much admired. It was given an award of merit by the floral committee. The flowers, which are produced on a tall scape, are white, of open

campanulate form, some 6 inches across. The leaves are about 2 feet long and about 6 inches across the widest part, and are more erect than is usual in this genus. *Crinum Ratrayi* is said to be closely allied to *C. giganteum*.



CRINUM RATRAYI.

(Slight reduction.)

From a drawing by Gertrude Hamilton.

Introduced from Uganda and shown by Sir Trevor Lawrence, Bart., at the meeting of the Royal Horticultural Society on the 28th ult., and given an award of merit.



Roses is to come single, and even some of our show Roses are almost single, such as *Frau Karl Druschki*. If a fine bold group were wanted for a conspicuous position I would suggest pillars of *Dinon*, *Noella Nabonnand*, *Mrs. Orpen*, and

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

PEACH TREES IN FLOWER.—It is important to protect the blossom of Peach trees on walls outdoors with some sort of covering, such as canvas or fish netting. The former is, of course, safer, but even the latter will keep off several degrees of frost. To ensure a good crop of fruit some such precaution is essential, for one frosty night (and late spring frosts are common, particularly in low-lying districts) might easily destroy the finest promise and blacken the tender blossoms. Take care that the trees when in flower do not suffer from want of water. Wall trees soon get dry, for they benefit little by rain. If they become dry the flowers will not set. Amateurs often complain that the flowers of their Peach trees do not set, and this, we are sure, is often the reason.

Looking after Peach Trees Outdoors.—Disbudding the young shoots is a matter that must now be attended to. This work is best carried out gradually, so if there are not many trees to be attended to it is worth while first to remove every other one of the young shoots, always taking care, however, to leave a good and well-placed one at the base of the shoot and one at the top. At intervals of about ten days a few more should be removed, until, finally, only those at the base and apex and one or two more remain. The number of these latter will depend upon the amount of space there is to fill. Where there is room for an additional shoot one should be trained in. Usually, however, in a tree that has been properly attended to there will be little room for leaving more than those at the top and bottom of last year's shoot. If there are any thick gross shoots in the tree, cut them right out; do not cut them back. They will only grow again all the stronger. It is not the strong shoots that produce most flowers, and therefore fruits, but the moderate-sized twiggy ones, and these, of course should be encouraged.

Thinning Grapes.—This is a work that needs very carefully performing, otherwise the bunches and berries will be disfigured. First remove all the small seedless berries, for they will never develop; then cut out any that are crowded together, taking care to leave those that will make the most shapely bunch. Those inside, near the stalk, should be cut out also. The first thinning should be done as soon as it conveniently can be—when the berries are the size of small Peas. A second thinning is

necessary in about a fortnight, so as to shape the bunch and remove any berries which are crowded. Take great care not to prick the berries with the scissors or to rub them with the head or sleeve; all these help to spoil their appearance.

Laying Out Small Gardens.—We are often asked questions about the laying out and planting of quite small gardens, so as to produce the best possible effect. It should always be remembered that the wider a border is, and the bolder the groups of plants contained in it are, so much more effective will be the result. It is much better to have one border 6 feet wide than to have two each 3 feet wide. Do not put the same plants in singly here and there, but keep them in groups, and you will produce a far more pleasing effect. Try also to keep the colours distinct, for this again tends to give the best results. If you have a border, say 30 feet long, divide it roughly (not definitely) into four colour groups. Begin with white, then plant blue, yellow, and red, working in the lighter shades, as pink, pale blue, sulphur, primrose, &c., so as to lead up to the dark shades. Always have a grass edge to the flower border; it much improves the effect of the latter. Stake the plants neatly, so that the sticks are hidden. The bare soil should not show through; there are plenty of cheap and easily-grown annuals that might be sown to cover it.

The Apennine Windflower (Anemone apennina).—This lovely spring flower carpets the ground in the woods of Italy just as the Wood Anemone does in Britain. It grows freely in almost all soils, and is to be had cheaply in large quantities, so that there is no reason why it should not be planted extensively. Only a poor idea of its beauty can be gathered by planting it in little tufts about garden beds and borders, but by putting it in the grass we see it under conditions

such as it grows in in its native land, and which add materially to its effect. There are many spots about most gardens where this Anemone could be planted and left to take care of itself, and after a few years a series of pretty pictures growing yearly in extent and beauty will be the result. We have tried it in many ways, and it has never failed. It does not increase quite so fast in stiff loam, but in light, free soils it runs rapidly, and will make a carpet as thick as the Anemone in the woods. In thin plantations where the sun can reach it beautiful effects might be made, and in grass it is specially charming, coming into flower in April, its clear blue stars borne just above the points of the fresh green growing grass.

The Alpine Pink (Dianthus alpinus).—This pretty little Pink is still comparatively rare in gardens, as it is not one of those things that, once planted in the rock garden, practically takes care of itself afterwards, although in suitable positions it does not give much trouble. It spreads into dense tufts of deep green growth seldom rising more than 3 inches in height. The proper place for it in the rock garden is one sunny and exposed, but where it can have abundance of moisture so that it should be as near the ground level as possible. Although moisture-loving, there must be no stagnant water in the soil, a good depth of light material—well-decayed leaf-soil is as good as anything—from which all excess of water can rapidly drain away being the best. The more exposed the plants are the healthier will they be and the greater the number of flowers. This species is easily distinguished from other alpine Pinks by its dark shining green leaves. The flowers, which appear in June and July, are borne singly on a slender erect stem, but so profusely from flourishing plants as to quite hide the foliage. They are each about 1 inch in diameter, deep rosy purple, spotted with crimson, a distinct dark zone of colour around the eye, and the edges of the petals fringed.

Arabis albidula. This is a most useful spring-flowering plant, and may be said to be indispensable in a garden where spring flowers are valued. It has not been mentioned lately so much as the double variety; the flowers do not last so long as the latter, but they are perhaps more freely produced. Both *A. albidula* and the double form are splendid plants for the beginner, and he would do well to add them to his list, for in early spring they are most welcome.



A BED OF WHITE ROCK CRESS (ARABIS ALBIDULA)

GARDENING OF THE WEEK.

FLOWER GARDEN.

PONDS AND WATER PLANTS.—This is a favourable season to form new ones. In old ponds clean out leaves and other matter which have accumulated during the year, and if there are arrangements for letting out the water down to the muddy bottom it will greatly facilitate the work. The accumulations can then be scraped to the sides with wooden rakes, taking care in so doing not to break or injure in any way the crowns and young growths of the plants which will now be pushing forth. Pull out all weeds. Next attend to the plants. Vigorous strong-growing *Nymphaeas* require dividing about every alternate year to prevent overcrowding and to keep up the size of bloom and foliage, and no time of the year is better for the operation than now as the crowns are commencing to grow. Take a sharp spade and cut through the rhizome (or whatever it is called) generally found above the surface of the mud, and dig it out with as many roots as will adhere to it, and if desired divide again into single crowns and replant at once. Throw old sacks or mats over all the crowns, whether divided and replanted or not, until the water is turned on and cover them, for the delicate young leaves are very sensitive to sun and air. Plant direct in the soil in preference to placing in baskets and such-like receptacles. They are superfluous and wasteful, for we have yet to find a vigorous *Nymphaea* doing so well that its roots will remain inside a wicker hamper. On the contrary, it will ramify through and take possession of a whole mass of soil and mud—a perfect network of healthy roots. The supposed use and advantage of the basket for lifting the plants under these circumstances is rather doubtful. Should new ponds be in contemplation or in course of construction the work should be pushed forward in order to have all ready for planting the Lilies before May is out, or a season will be lost. The selection of a site for an artificial pond is most important. Study carefully the natural lay of the land, and if possible form the pond in a hollow or depression at the foot of a slope if available. The depth of the former need not be great or the declivity of the latter steep, and in many places a mere suspicion of each is all one can get; but utilise even that if the natural formation of the ground will not admit of more. Avoid, above all, making one on the top of a bank; it would be altogether too artificial and unnatural. Neither place it too near the dwelling, for it would be too suggestive of a duck pond the greater part of the year.

THE ROCK GARDEN is now bright and cheerful with much bloom, and should be kept neat and tidy, free from weeds, and any moss that might have been overlooked during the winter cleaning should be scraped and brushed off the rocks and stones as suggested earlier in the year. To maintain a succession of bloom and effectiveness there are many things to be planted now. Assuming that seeds of various plants suitable for this purpose were sown in the autumn, they will be in good order for present planting. Iceland Poppies, various *Primulas*, Rock Pinks, *Erinus alpinus*, and such like, also plants raised from autumn cuttings, *Veronicas*, *Pentstemons*, *Plumbago* *Larpenae*, and a host of others. A few choice dwarf annuals should also be sown; they germinate and grow in chinks where nothing could be planted. JOHN ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

ORCHIDS.

NEGLECTED ORCHIDS.—The *Catasetum*, *Cynoches*, and *Mormodes* have been greatly neglected of late years; the more popular species and hybrids of *Odontoglossum*, *Cypripedium*, *Cattleya*, and *Laelia* have usurped them, yet there are few plants which produce such remarkable and interesting flowers. They have generally been considered as nothing more than botanical curiosities, and of no value for cutting purposes, but when well cultivated such forms as *Catasetum* *Bungerthii* and its several beautiful distinct varieties, *Cynoches* *chlorochilon*, *Mormodes* *Rolfiei*, *M. pardinum*, *M. Buccinator*, *M. luxatum*, *M. l. eburneum*, &c., have a decorative value. Some produce sweet-scented flowers. These deciduous plants have a long, decided rest during the winter months, and now that they are commencing to grow, require immediate attention. They should be shaken out of their old compost and be repotted. The new should consist of equal parts of fibrous loam, peat, and chopped moss, adding a little leaf-soil and sand. For repotting I prefer the ordinary flower-pots with copper wire handles fixed to them. The wires, being about 12 inches in length, will bring the plants near the roof-glass, for the maximum of light during the growing and ripening seasons is essential to their welfare. The pots ought to be half filled with drainage, and all long, heavy bulbs should be tied to the wires to hold them firm. Suspend the plants on the south side of the hottest house, where for the first few weeks only a small amount of water must be given, because, if the soil is made too wet, the young, tender growths are apt to become discoloured and quickly damp off. When the roots and growths are advancing satisfactorily, gradually increase the supply till each plant has re-established itself; then when in full growth water may be copiously supplied, providing the compost is porous and dries quickly.

Immediately such Orchids as *Lissocilus*, *Eulophias*, and *Cyrtopodiums* are seen pushing up their young growths they should be repotted in a mixture of good fibrous

loam, a small quantity of leaf-soil and coarse silver sand, adding a moderate quantity of small crocks. Afford plenty of drainage, and when repotted place the plants in a sunny position in the warm house, and as near to the roof glass as possible. Give water as advised for the *Catasetums*, &c.

SPATHOLOTIS LOBBII, S. Fortunei, S. aurea, S. kimballiana, S. Vieillardii, and the pretty *Ipsaea speciosa* may also be repotted at this season, using a mixture of sandy peat, chopped sphagnum moss, and plenty of drainage. These plants require a shady position in the East Indian house, and plenty of water when in full activity. As *Bletia hyacinthina* goes out of flower it should also be repotted, if not already done. It will require abundance of water till growth is completed, when the amount should be gradually withheld. A light position in the cool house will suit it admirably. Other species of *Bletia* succeed better in a cool part of the intermediate house. The pretty *Arundina bambuseifolia* and A. *Philippii*, both terrestrial Orchids, are pushing up new growth from the base of the old stems, and stand in need of fresh rooting material. Repot them in a mixture of peat, loam, and moss in equal parts, and add sufficient small crocks to maintain porosity in the compost. Place the plants in a light position in the *Cattleya* or intermediate house, standing them on inverted pots or suitable stands to bring them near to the roof-glass, for unless they get abundance of light the stems become thin and drawn, and fail to bloom satisfactorily. For a few weeks after potting water them carefully, increasing the quantity as the new roots push into the compost. When established an occasional dose of weak liquid manure is beneficial to them.

Burford Gardens, Dorking.

W. H. WHITE.

INDOOR GARDEN.

CLEMATIS.—Many of the best garden varieties are admirably adapted for greenhouse decoration. The time of flowering depends on the temperature of the house. Trained up pillars or to the rafters they are very pretty in spring, especially C. *indivisa* var. *lobata*. Cultivated in pots small plants should be grown up a single stake; larger specimens can be trained on balloon-shaped wire cages. The earlier plants are now passing out of flower. Some require potting on, others only top-dressing. Use a compost of rich fibrous loam. See that the pots are well drained. If large specimens are required quickly three or four plants can be grown in a pot. Clematises are gross feeders, and will benefit by the application of manure water when growing freely. Place in a house with a temperature of about 50°. In June stand the plants outside to ripen the growths.

VIOLETS.—The present is a suitable time to propagate a stock of plants for flowering next winter. The usual way is to grow the plants on a north or west border, lifting and transferring them to pits in autumn. Another method is to select a rather more exposed position, making the plantation a suitable size for placing frames over in autumn. This method is especially suitable for the single varieties. Plenty of young plants can be obtained by lifting the old roots, and selecting the strongest of the rooted side shoots. The single varieties may be planted about 1 foot apart, and 14 inches between the rows, doubles 10 inches apart, and 1 foot between the rows. If they are to remain in the same position to flower it will be better to plant rather closer. Syringe after hot days, remove all side shoots, and frequently stir the surface of the soil.

SEASONABLE WORK.—Continue to pot on *Chrysanthemums* as they become fit. Sow seeds of *Balsams*, *Celosias*, and *Cockscombs* for succession. The earlier batch will be ready for potting on. Use a rich soil. The earliest *Bouvardias* are now growing freely; insert all cuttings required. Remove the points of the young shoots at every second pair of leaves, and pot on when breaking again. The same remarks also apply to *Fuchsias* and *Lantanas*. Cut back.

ACACIAS as they go out of flower. The smaller growing species, such as A. *Drummondii* and A. *hastulata*, do not require much pruning. On the other hand, A. *armata* and its varieties grow vigorously, and if not cut back rather severely, soon become too big for the ordinary greenhouse. Pot on when breaking freely if required. Insert cuttings of *Tecoma Smithii*. Usually the houses become very crowded at this season. A skeleton frame fitted with blinds and the sides covered with tiffany is very convenient where house room is none too plentiful. In this many things, such as the forcing shrubs and *Campanula pyramidalis*, can be gradually hardened off. As room becomes available in the propagating cases insert cuttings of winter-flowering stove and greenhouse plants. *Leonotis* *Leonorus* is a very old but much neglected garden plant. Cuttings inserted now and pinched once or twice will make nice flowering plants by the autumn.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

EARLY PEACHES AND NECTARINES IN POTS.—The fruit on trees which were started in December should now have passed the stoning process, and should be given every encouragement to develop. The temperature may be safely increased if it is desired to have ripe fruit at the earliest possible date, but avoid too much artificial heat. Keep the house always in a humid condition by frequently damping down the floors. Use the syringe freely morning and afternoon; close the house early in the afternoon after syringing. The trees will now benefit by the application

of a surface dressing of horse manure and loam in equal proportions, adding a 7-inch potful of soot to a barrowload of the compost. The pots should, if possible, be covered to the rims with fermenting material to prevent the soil becoming dry too quickly. Diluted farmyard drainings and Le *Frutier* may be given alternately as a stimulant. The final thinning of the fruit may now be done. Guard against overcropping, or the quality will be disappointing. At this stage all superfluous wood should be removed and the young growths regularly pinched.

EARLY PEACH TREES UNDER GLASS.—Do not try to force these by hard firing till the fruits have stoned. The stoning process is a great tax on the trees, and should not be unduly hastened, as nothing can be gained thereby. Even when the last swelling commences hard firing should be avoided. At this stage the fruits may be reduced to the desired number. This must be decided by the health and vigour of the trees. Young vigorous trees may be heavily cropped in order to counteract rank growth. When the fruit show signs of colouring the shoots should be tied neatly to the trellis. Expose the fruits to the full benefit of light and warmth. Fruits which are hanging below the trellis must be raised up to the light; a small piece of lath placed across the wires will hold them in position. Stop shoots which are growing too rank, and keep laterals constantly pinched. Water with tepid liquid manure when necessary, except young trees. Syringe twice daily, admit air liberally in favourable weather, and close early in the afternoon, so that full advantage is taken of sunshine, thus reducing the necessity of firing to a minimum.

HARDY FRUIT GARDEN.—Wall trees which are subject to the attacks of aphides must be kept under observation, and measures be taken to eradicate it as soon as it appears. Tobacco water or quassia extract are excellent remedies when applied in time. Choose a dull day for the work, so that the mixture will have time to take effect before the trees become dry. Gooseberries and Currants are subject to the attacks of several kinds of caterpillars, which, if not quickly checked, will do irreparable damage. Hand picking is the most effective way of dealing with them, but this is not practicable where trees are grown extensively. Dry soot and lime in equal parts dusted over the trees, which should be previously damped with a syringe or rose can, is a simple and effective way of dealing with them. E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

THE DIBBLE & THE TROWEL.—Much planting out of vegetables must necessarily be accomplished during this month, and too much stress cannot be laid on the need for carefully carrying out every detail connected with this work. Taking for granted that the ground has been well prepared, and the young plants properly lifted from their seed beds, the next consideration will be how best to put them in the best position. By means of a garden dibble planting operations can be quickly executed, but of all garden implements the dibble is, in my opinion, the one we could best do without. In most cases, where amateurs and cottagers are concerned, the dibble seems to satisfy all their requirements. By its help a hole is made, and the young plant with its tender rootlets pushed in. Possibly the roots are pressed against the hard sides of the hole, or huddled together in a mass, greatly to their detriment. To those contemplating planting out vegetables I would strongly advise the use of the garden trowel only. My method is first to draw out a drill about 2 inches deep, then the trowel is applied to loosen the soil and prepare a hole for the young plant. These holes are made a little larger than the diameter of the roots, so that they can be spread out to their full length. The holes are not made too deep, just so that the roots may benefit by the influence of the sun's rays. When the plants are placed in position the soil is carefully drawn in and made firm as the work proceeds. After completion, if the weather is dry, a copious watering is given, and round the base of each plant some dry soil is strewn. This simple device will materially prevent evaporation in hot and dry weather.

GLOBE ARTICHOKE.—Where new plantations are to be made, or where old ones require assistance, they must now be attended to. If suckers were potted up in autumn they can now be conveniently used for this purpose, but failing such supply suckers may be obtained from existing plantations by lifting a few of the old plants. This method is preferable to that of cutting the suckers from plants that are still in the ground. When lifted it is an easy matter to separate the suckers with but slight injury to the roots. From robust plants a number of suckers can be procured. Plant alternately 4 feet apart each way on ground that is fairly rich with a good exposure.

VEGETABLE MARROWS.—Seeds of these may now be sown in 4-inch pots. Give ample drainage and fill to within an inch of the top with light loam. Plant two seeds in each pot slightly apart, so that the weakest may be drawn out without disturbance to the remaining plant later on. Long Green and Long White are free fruiting and reliable sorts. Cabbage plants should be earthed up, but before doing so stir the surface between the rows with a Dutch hoe, or with a digging fork if the ground is very hard. Early Peas should be earthed up and staked. If the mould is made fine before being drawn up it will tend to keep back slugs. A few twigs are also put in to afford shelter and act as a training medium for the Peas until they reach the stakes. The Pea is such an important crop that too much care cannot be given to it. It well repays the most careful attention. J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

THE KITCHEN GARDEN.

KEEPING ONIONS.

DURING the present spring it has been demonstrated that ripening of the bulbs has more to do with keeping qualities of Onions than have varieties. Last summer was by no means an exceptionally good time for Onions, yet in almost every direction they were well finished. Bulbs sent me from various sources have kept wonderfully, and some very fine ones of Ailsa Craig, planted recently, were then very hard, and showed not the least evidence of softening. It is interesting to note that plants raised from seed under glass and planted out in good ground in the spring have given much finer and harder bulbs than those from outdoor-sown breadths. The raising under glass and planting out when the plants have become hardened enable them to escape harm from the maggot and give them a longer season to mature. Formerly there was a good deal of prejudice against large bulbs thus produced, as they were regarded as soft, watery, and non-keeping. That opinion, with better knowledge, does not now prevail. The practice of giving the Onion plants liberal soakings of liquid manure to force huge bulbs to be created is less now, and growers realise that such treatment is inconsistent with securing hardness, finish, and proper ripening, yet getting great size also. At Highclere Castle, last year, Mr. W. Pope for a trial purchased seed sown in pans, raised under glass, and put out into rows 12 inches apart, no less than some thirty varieties, or so-called varieties. These plants were 6 inches apart in the rows. The product was a splendid crop of about 80z. bulbs, and, to the acre, certainly a total produce of not less than twenty tons. Nearly all these bulbs kept well. Were the plan adopted on good, well-manured soil to the extent of several acres the bulb produce would be enormous, and could be sold at a profit far cheaper than Normandy or Egyptian bulbs. I have just seen a fine hard, clean, mature sample of Ailsa Craig grown by Mr. Burkinshaw at Chedington Court, Dorset, who raised the plants under glass, but did not use either liquid or artificial manure dressings. The bulbs are as solid and fresh as well as any could be. A. D.

THE BEST SIX PEAS.

THE article on page 141 gives a selection of some twenty varieties of Peas. That is too many to be of help to the amateur who wants only a few, and those of the best. Having recently to give a lecture on edible Peas I thought interest would attach to what I regarded as the best half-dozen varieties for successional purposes if I invited the co-operation of a few leading growers and exhibitors to furnish in each case the names of six varieties. Each one kindly responded, and when I mention that the lists that came to hand were those of Messrs. E. Beckett, J. Gibson, W. Pope, J. Bowerman, W. Fyfe, and A. Ward, it will be admitted that these gardeners are first-class ones. With my own list previously prepared the following represented the number of votes given to each variety: Sutton's Early Giant and Veitch's Autocrat, 7 each, the best first early and the best late; The Gladstone, 5; Edwin Beckett, Centenary, and Criterion, 3 each; Alderman, Duke of Albany, Prizewinner, and Senator, 2 each; and Peerless, Eureka, Prestige, Exonian, Acme, and Duchess of York, 1 vote each. Many of these varieties are not mentioned in the list published, perhaps not having been grown by the writer, but it is worthy of note that almost every one has at one time or another taken honours at Chiswick. I expected that so good a Pea as Thomas Laxton would have been included in one list at least, but, whilst a good cropper, the pods have not that fine appearance seen in most of the varieties named. There are

in Peas now some indispensable requirements. Pods must be long, well filled, with the enclosed Peas of a good green hue, and be so formed as to open freely in the shelling process. Some pods of still largely-grown varieties have a puffed appearance, and when pressed on the upper edge to shell do not open, but simply break, making the work of shelling difficult. It is worthy of note that whilst most of the varieties named have fine handsome pods, they are heavy croppers, and naturally make a good succession. A. D.

A RED-FOLIAGED TURNIP-ROOTED BEET.

It is said that a Turnip-rooted Beet may be looked for in the coming season having a top as red in tint as Dell's or the Middleton Park Favourite Beets. One of the best of the Turnip-rooted Beets is Sutton's Green Globe, but though it has a green top it is of excellent shape, early, and the flesh of fine colour; it is excellent for early uses and for exhibition. Great things have been predicted of some of the new American Turnip-rooted Beets, but so far as they have been tested in this country they do not show any advance upon our home-raised varieties either for earliness, colour, or shape. Turnip-rooted Beets are excellent for sowing on stiff and heavy soils, as they form their bulbs upon the surface. Many of the allotment holders who exhibit vegetables early in July depend upon the Turnip-rooted Beet rather than the long varieties. R. D.

CHOICE CABBAGE LETTUCES.

AMONG the newer varieties I saw growing last summer was Johnson's Eclipse, early, compact, self-folding, and in colour intermediate between green and white, a variety which supplies a good deal of crisp, succulent food. Daniel's Continuity is well named, as it may be said of it that it stands for a considerable time without bolting; it is a compact growing variety, colour, green tinted with brown; actually in the case of a true stock the hearts appear to rot before they will bolt to seed. Wonderful is a selection from the Old Neapolitan, dwarf, early, all heart. In appearance it seems to differ very little from the Neapolitan when represented by a good stock. Iceberg is a large, compact, rough, crisp-leaved Lettuce, scarcely a desirable type. Buttercup, as its name implies, is a yellow-leaved Lettuce, and however good it may be in quality, it must be admitted its colour is rather against it. Sutton's Favourite is a large crisp-leaved Lettuce, which imparts to it a rough appearance. In this country the Cos type of Lettuce appears to be preferred to the Cabbage shape, the preference being one of old growth; but the solid white hearts of several of the Cabbage varieties are excellent for salad purposes. In France, Germany, and America the Cabbage type is undoubtedly preferred, and the great portion of the novelties issued from these countries are Cabbage Lettuces. In this country the Cabbage type has become much more popular than it formerly was. Cabbage seeds are white and black in colour according to the variety; one or two varieties have yellow seeds. R. D.

ORCHIDS.

ODONTOGLOSSUM RUCKERIANUM. LAYCOCK'S VARIETY.

IN March last this flowered in the collection of Captain Laycock, Wiseton, Bawtry, Notts. The typical *O. ruckerianum* is distinguished from *O. andersonianum*, and the numerous other forms of the natural hybrid, between *O. gloriosum* and *O. crispum*, by the rosy shade which pervades the whole flower, more or less, and the narrow gold-tinted border to the sepals and petals. The variety distinguished by the above name is one

of the handsomest on record, with well-proportioned flowers of great substance; sepals and petals are deeply suffused with rose-purple, the sepals to the greater extent, and in addition bear a number of large, nearly confluent chocolate-red spots confined to the basal halves; the petals are similarly marked, but their basal areas are soft white, and the spots are more sparsely distributed. Both sepals and petals are bordered with an undulating margin of glistening golden yellow. The fringed labellum is of a light primrose-yellow, deepened to old gold on the crest and base, and is adorned by a central deep reddish conspicuous blotch. The plant is decidedly an acquisition to any collection. ARGUTUS.

INSECT PESTS.

PEACH LEAF-CURL.

(*EXOASCUS DEFORMANS*.)

DISTRIBUTION, AND PLANTS ATTACKED.—This disease, also known as "curl" or "leaf blister," proves very injurious to peaches and nectarines during certain seasons, whilst Almond trees are also sometimes attacked. Occurring in every part of the world where these trees are cultivated, it is most abundant and destructive in humid regions, although not entirely absent from districts where the air is exceptionally dry.

Description, and appearance of plants infested.—The leaves and young shoots are the parts attacked by the fungus; on rare occasions the blossom is also infected. Diseased leaves become fleshy, much puckered and twisted or curled, and grow to a larger size than usual; the colour is at first a pale yellowish green, often becoming more or less tinged with rose colour; finally, the upper surface of diseased leaves becomes covered with a delicate bloom, somewhat resembling that on a Plum: this represents the fruit on the fungus. After the fungus has formed fruit, diseased leaves fall to the ground, this usually taking place before midsummer. Young shoots infested by the fungus become swollen and twisted or curved, and the internodes are very short; consequently the diseased leaves usually form a tuft at the end of a stunted shoot. When a branch is once infected, the fungus continues to grow in the tissues, and passes into the new leaf-buds formed each season. The appearance or intensity of the disease, even in the case of leaf-buds originating from infected shoots, depends almost entirely on prevailing climatic conditions. During a genial spring, when growth is unchecked until the leaves are full grown, "curl" is practically absent; whereas if a cold, damp period occurs while the leaves are young, the disease at once appears, and its rapid spread is much favoured by alternating short spells of warm and cold weather.

Injury caused by the disease.—The injury caused by the disease consists of the dropping of the fruit at an early stage, and the strain on the tree due to the growth of a second crop of leaves about midsummer, this second crop usually remaining free from disease. In the case of nursery stock, consecutive attacks for three or four seasons usually kill the tree, or stunt its growth to such an extent that it is practically valueless.

Sources of infection and remedial measures.—In the United States it is contended that "curl" can be held in check by spraying with a fungicide alone; unfortunately, repeated experiments have proved that this is not true for this country. In the case of diseased trees, all the terminal shoots bearing infected tufts of leaves should be removed and burned; diseased fallen leaves should also be collected and destroyed. By removing the diseased shoots one source of infection, namely, that arising from the spores formed on leaves originating from these diseased shoots, is removed;

besides, there is no advantage in retaining such contorted twigs on the tree.

A second source of infection depends on the presence of spores that have passed the winter in the angle formed between leaf-buds and the branch on which they grow, inside the bud-scales, or in minute cracks in the bark. Such spores should be destroyed by spraying with Bordeaux Mixture, spraying to commence when the buds show the very first indication of swelling. Two sprayings, at intervals of ten days, if thoroughly well done, should suffice. The leaf-buds should not be sprayed after they begin to expand, or the foliage will be destroyed or injured.

The mixture should be made with 20lb. of sulphate of copper and 10lb. of lime to 100 gallons of water. The sulphate of copper must be dissolved in a vessel of cold water, and the lime, which must be pure and fresh, slaked in another vessel. The contents of the two vessels should be poured together into a tub and the proper quantity of water added. Sulphate of copper solutions are poisonous, and tubs, pails, or other vessels which have contained the mixture must not be used for other purposes.—*Board of Agriculture and Fisheries leaflet.*

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

GROWING TREE CARNATIONS (M. J. H.).—As your Carnations are still in flower they must by now begin to show signs of exhaustion, and they would undoubtedly be benefited by repotting. If carefully done, it will not be necessary to disturb the roots much, and the new pots must be at least 1 inch wider than the others, so as to allow space for the new soil. A suitable compost may be formed of four parts good fibrous loam to one part of leaf-mould, and the same amount of sand. Firm potting is very necessary. Later on, as the pots get full of roots, a very valuable stimulant is a mixture of soot and manure water allowed to stand till clear, and even then applied in a much diluted state.

PRUNING CERTAIN SHRUBS (T. C.).—Of the different shrubs named the flowers of *Cornus sibirica* are small and unattractive, and play little if any part in the embellishment of the plant. It is principally grown for the winter beauty of its bright red bark, which feature is, of course, more noticeable after the leaves have fallen than it is during the summer months. For this purpose it is, when once established, cut down close to the ground early each spring, as on the young shoots the bark is much brighter than on the older branches. As your plants are standards, this cannot, of course, be done, and the only pruning necessary will be the annual thinning out of any old and exhausted shoots. As your shrubs are, however, only just planted, they should not be pruned at all this year. *Clethra alnifolia*, not *prunifolia* as written

by you, is a very pretty shrub, which in August and September bears numerous spikes of white blossoms. It is known as the White Alder in the United States of America, where it grows wild, and in this country it succeeds best in a moist peaty soil, and a spot fully exposed to the sun's rays. It needs no pruning of any kind, unless it be the occasional thinning out of any weak branches that may have become crowded. Beyond an occasional shortening back of any long straggling shoots, *Tamarix tetrandra purpurea* requires practically no pruning. The deep pink flowers with a purplish suffusion are borne from the end of May onwards. *Spiraea van Houttei*, whose pure white blossoms are at their best in the month of May, should after flowering have any old and exhausted shoots cut out in order to allow the development of some young and vigorous ones.

WORMS ON GRAVEL (J. A. H.).—When worms work through gravel walks it is evident that the walks are badly made. Properly a garden walk when being made should be excavated fully 6 inches deep at the sides and 8 inches deep in the middle, the centre thus forming a water furrow or drain. Into this excavation should be placed broken brick rubble, large stones, or chalk 3 inches thick at the sides and 5 inches in the centre. That being well pressed down, on it should come 2 inches of unscreened gravel, well levelled, the larger stones rammed well in, then on that an inch thickness of fine gravel, and rather thicker in the middle to round up the surface of the path. When well trodden and rolled a first-rate path is formed that remains free from puddles, weeds, or worms. You can at night, when the worms are on the surface feeding, give the walk a sprinkling of fine salt. Or you can put a bushel of fresh soot into a coarse bag, tied loosely, and soak it for forty-eight hours in twenty gallons of water in a tub; then water the paths with that late in the evening when the liquid has become quite clear.

GROWING LABURNUMS IN POTS (M. J. H.).—It is now too late to lift and pot Laburnums for flowering in pots next year, and even if such was not the case you would have to wait much longer than that for the seedlings to flower. The small specimens that may be seen flowering so freely at some of the spring shows are not seedlings, but are obtained by budding or grafting, as plants increased in this way flower naturally in a much smaller state than those raised from seed. If you wish to give your young plants a chance you may lift them next winter or very early in the spring and pot them in some good loamy soil, lightened if necessary by a little leaf-mould and sand. Then plunge them out of doors in a spot fully exposed to the sun, and keep them watered during the summer months. The check of removal and confinement in pots have a tendency to induce flowering, but in all probability you will have to wait two or three years before you have any blossoms.

APHIDES ON SWEET PEAS (Caroline Keys).—It is seldom one hears of Sweet Peas being injured by green fly in England. The climate of the United States being hotter and drier in summer, would, we think, predispose the plants to the attack of these pests. The remedy which suggests itself to us would be in the provision of a cooler and partly shaded portion of the garden in which to grow them. The growth of the Sweet Pea has been brought to great perfection at the present day in England, and the best results are brought about by those possessing well-cultivated, deep, rich soil, or where the soil is naturally poor and shallow, by digging trenches 15 inches deep (where the rows are to be grown) and distant 4 feet apart, filling the bottom of the trench with well-rotted cow or horse manure to the depth of 7 inches, afterwards filling up the trenches with the best available soil in which to sow the seeds. Treated in this way the Peas would grow freely and strong, and, we think, would be proof

against the attacks of the fly. By steeping the seeds in water in which sulphate of copper has been mixed (a lump the size of a Walnut in a pint of warm water), letting them stand in for half-an-hour, protects the Peas from the attacks of mildew during the following summer, and may also serve to keep the green fly at bay. In any case it is worth trying, as it will do the seeds no harm. You can kill the green fly by spraying with paraffin emulsion, quassia extract, or soft soap insecticides, or dusting with Tobacco powder.

MOSS LITTER MANURE FOR HOT-BED (Trafford).—No doubt the chief reason why moss litter does not give a continuous warmth in a properly made bed is the absence of straw. Although in your case some straw is used, the proportion is not stated. Moss litter is a well-dried material. Straw is also a dry material, and may be kept in any bulk without heating, but it nevertheless seems to contain some sap, or, perhaps, is more absorbent of moisture than is the moss litter. In any case it constitutes an important element in a hot-bed, because of its more enduring properties, drying or overheating less rapidly. But even a straw manure hot-bed can be made to give a fairly moderate and retentive heat only when properly prepared. The manure must be fresh from the stable, have the long straw shaken out, and the remainder well stirred and mixed, also partially moistened; then, as soon as it heats up to 60° turn, and partially moisten it again, and even a third time, before it is fit to make a bed, and give off a fairly enduring heat.

VARIOUS QUESTIONS (R. M. Dunlop).—You can obtain Webb's Senator Pea from Messrs. Webb and Sons, Wordsley, Stourbridge. Please say which Anemones you refer to, otherwise we cannot give you correct information about them. The seeds of tuberous Begonias ought to have been sown under glass in a warm house in January, you would then have had flowering plants this year. It is now too late to expect them to flower this year; they would, however, flower well next year. You can get Gladioli to flower next year from seed by sowing now in a warm house. You should not have placed your Begonias and Gladioli in such a high temperature. The best time to pot *Gladiolus Colvillei* and its white form, *The Bride* (the best for forcing), is in the autumn, keeping them covered with ashes in a cold frame. When roots are formed put them in a house of the temperature of 55°. When the flower spikes appear give a slightly higher temperature. The best thing to do with yours is to inure them gradually to a lower temperature, and finally they will do well in a greenhouse. As you must know, Gladioli and tuberous Begonias flower outdoors in summer.

LICHEN ON LAWN (T. H. W. Thomas).—We think the cause of the recent appearance of lichen on your lawn is due to the exhaustion of the turf from frequent mowings and the absence of occasional surface dressings of manure and soil in winter to nourish the grasses. There is no time now effectively to rid the lawn of moss and renew the grasses before it will be required to play upon. But if a dressing similar to the one you have been recommended to make were applied immediately the grasses would be encouraged to grow and the lichen discouraged, but we would substitute nitrate of soda for sulphate of ammonia. The dressing of soil should consist of ordinary kitchen garden soil and leaf-mould, or short, well-decayed manure in equal proportions. The soda must be ground down very small and sown broadcast over the lawn after the dressing of soil has been applied, and well worked into the dressing afterwards with a rake. The quantity of the soil dressing to be applied to the lawn should be at the rate of four barrowloads to the rod (30½ square feet) and of the nitrate of soda two quarts to the rod. A dry day should be chosen to carry out this work, and after the raking is finished the lawn should be well rolled.

PERENNIALS FOR GARDEN (Ajax).—No, it is not too late if you plant the perennials at once. To cover the arches, plant Clematis Jackmani, Dutch Honeysuckle, Roses Crimson Rambler, Mme. Alfred Carrière, Longworth Rambler, Dorothy Perkins, Aimée Vibert, Reine Marie Henriette, or Gloire de Dijon. Rose Reine Marie Henriette, Gloire de Dijon, Dutch Honeysuckle, or Clematis would do against the walls. Showy perennials are for the back: Helianthus Miss Mellish, Hollyhocks, Dahlias, Helenium, Galea, Tiger Lilies, Pyrethrum uliginosum, and Michaelmas Daisies. Towards the front plant Campanula persicifolia, Lobelia Queen Victoria, German Irises, Pyrethrums, Japanese Anemone, Montbretia, Lilium croceum, Carnations, Violas, and many others. You can plant cordon trees of Apples and Pears against the wall, or the Loganberry or Wineberry (climbing fruits) might suit you.

SPHAGNUM (J. S. L.).—The moss sent is sphagnum, and is suitable for use in Orchid culture. We would not call it a good sample, on account of its length and small heads; it is the sort usually found growing in the low-lying lands, and we would give preference to the shorter-growing, big-headed sort generally found on higher ground. Still much worse samples are used, and we would recommend in gathering to pick it as short as possible, otherwise remove some of the tail ends. Another drawback to this sort is, in places where good water is used, it will often grow so freely that in a degree it smothers the basal eye of the Orchid, and causes it to become weak from the lack of light, so in using it for surfacing it should be cut up very small.

MELON PLANTS SCORCHED (H. Fowler).—When the Melon plants are 6 inches high the leaves are naturally very tender, and a temperature of 90°, without any air and the sun shining on the glass, would undoubtedly scorch them. When young and recently planted they should be shaded from the sun. Even without sun-heat a dry, arid atmosphere with a temperature of 90° would probably scorch them. The same temperature without sun-heat and with plenty of moisture would not scorch them. A strong bottom-heat would scorch them. We suppose the roots have not been injured in this way?

BELLADONNA LILIES (F. Jenkins).—We have never met with a parallel case to yours, but should without hesitation say that the curious behaviour of your Belladonna Lilies is caused by a severe check just as the flower spikes were developing. Possibly it was frost which destroyed the embryo blossoms, but the lowermost portion of the flower stems being deeper seated did not suffer to the same extent, and having now lengthened have pushed the uppermost and lifeless part above the surface of the soil.

PLANTS FOR TUBS (D. W. D.).—We would certainly plant flowering subjects in preference to shrubs, and there are several of importance well suited to tub gardening. Unfortunately, you have given us no idea as to whether you have the convenience for growing on such plants as Fuchsias, Ivy-leaved Pelargoniums, or the white and yellow Marguerites. If you wish for a plant of some hardness, why not try the early-flowering Chrysanthemums, such as Horace Martin, Marie Masse, and others, or these in conjunction with Aster Amellus, A. bessarabicus, &c.? By planting about six plants of each of these a fine show would result, or you could try Aster cordifolius elegans, using not more than three plants. The plants, of course, would require attention in watering, and would be very effective at flowering time. Liliun speciosum rubrum would make a most effective display if about one dozen good bulbs were planted in each tub. Suppose, for instance, you planted two tubs with these Lilies, two with Aster cordifolius elegans, two with Aster Amellus, and two the Chrysanthemums named. These would

be most effective when in flower and a little unusual. Of course, one of the finest plants for tub gardening is the blue African Lily Agapanthus umbellatus, and this, if well cared for, is most effective in August and September when in bloom. If, however, you have made up your mind for shrubs, we would suggest variegated Euonymus or Box, with green and variegated Hollies, Yucca recurva, and Y. gloriosa. These would not require any winter protection. The Agapanthus would require winter protection, and the same remark applies to green or variegated Agaves if used for this purpose.

ROSES (M. L. Firminger).—The long shoots made by the Crimson Rambler Rose should be left almost their full length, just cutting off the unripe ends. Flowers are produced along them the next season (that is to say, flowers develop this year upon growths made last year). Do not, however, let them become crowded; when you find it necessary to remove any shoots cut out one or two of the oldest. Keep the bush Rose well thinned out in the middle, so that light and air may penetrate. If it is newly planted cut the shoots to within 2 inches or 3 inches of the ground; if already established, cut them back moderately, thinning out in the centre. The name of the plant you enclose is Euonymus japonicus albo-marginatus. There are several other ornamental varieties.

CANTALOUPE MELON PLANTS (Plymton S. W.). Our experience of growing Cantaloupe Melons in England has been that they succeed much better when grown in cold frames, with a manure bed added to give a little bottom-heat to start them in, than when subjected to the greater heat necessary to grow the ordinary sorts. If our correspondent will adopt this method we think he will have no difficulty in succeeding with the Cantaloupe. Grown in this way we find the flavour is much better than in the imported varieties. The sample plant sent shows traces of having been infested with red spider, and this, with too high a temperature, would at least partly account for its unsatisfactory condition.

SEEDLING PLANTS DAMPING (W. W.).—Various causes may have operated to cause your seedling plants to damp off. The soil in your boxes may not have been sweet or properly drained, hence became close and wet; but there is a great possibility that if the heat in your hot-water propagator ranged from 60° to 65°, the temperature of the room in which the propagator stood was some 15° lower, and that would be injurious to tender seedlings. Covering up with glass would have been good practice as soon as the seed was sown, but it should have been taken off as soon as growth began. Putting it on as you did after growth would greatly weaken plants by excluding light and causing moisture to congregate, and thus lead to damping. A heated propagator should be in a greenhouse, and even then have a glass covering a few inches above the seedlings, and which would enable air to be given. A room is a very unfit place for seedling raising, as the little plants want all the light possible to strengthen them. The lack of sufficient light falling direct on the plants would cause them to become drawn and weaken, and thus susceptible to damping.

PRUNING POT-GROWN CLIMBING ROSES (T. C.). We presume the plants are only young ones, seeing that they are in 10-inch pots. If this is so we should recommend you to cut back to the soil one of the oldest growths and retain the others their full length. Any lateral shoots, especially those that have blossomed, cut back to about two eyes from their base. Keep the plant of Gloire de Dijon that has blossomed on the dry side for a week or two, and then repot should the plant need it, but if it was potted last autumn this will not now be necessary. When repotting use compost as follows: Loam two parts, old hot-bed manure one part, and a 5-inch

potful of bone-meal to each barrowload of compost. Pot very firm. Keep the house close and afford plenty of atmospheric moisture on fine days. As plants finish the second growth gradually harden the wood, and then place the plants outdoors for the remainder of summer and autumn. The W. A. Richardson treat in the same way after it has flowered, and the Reine Marie Henriette should have its laterals shortened now and be treated in the same manner as Gloire de Dijon.

BORDEAUX MIXTURE (K. McD.).—A good recipe for the making of Bordeaux mixture is 1 lb. of copper sulphate (bluestone), 1 lb. of lime, 1 lb. of coarse treacle or soft soap, and ten gallons of water. Crush up the bluestone and dissolve in ten gallons of water in a large wooden tub. Dissolve the lime in a gallon of water, and the soap or treacle in sufficient hot water; then mix the whole. When well settled and quite clear it is ready for use. Keep any left in the tub covered with a lid or with something lightly tied over it. With Potatoes, either have a knapsack sprayer, to carry on a man's back, or else use an Abol syringe. Apply once from the middle to end of July, and again three weeks later. A third may even be given rather later, if desired. Of course, it is easy to make fresh mixtures so soon as the one brew is exhausted. With Hollyhocks spray whilst the leaves are few and young, continuing to do so once in three weeks. Liliun candidum may be sprayed once a month, beginning at once before the leaves seem attacked.

BEGONIA CULTURE (Reader).—As the plants show signs of exhaustion after flowering, keep them rather drier at the roots in a house of the minimum temperature of 55°. As the days lengthen a warmer temperature of 60° to 65° is better; in this the plants, which must be shortened back previously, will push forth young shoots from the base. These may be taken off and inserted as cuttings. They form the only suitable cuttings; shoots from the flowering stems are useless. When rooted take out of the propagating case into a cooler temperature, say, of 65°. Pot into 3-inch pots in a soil of loam and leaf-soil, and some sand. When well rooted pot them into 5-inch pots, and there they will flower next autumn and winter. A minimum temperature of 55° is essential. If you do not want to root cuttings leave the young shoots to grow, cutting the old stems to within a few inches of the soil. Take care not to cut off any young shoots at the base. When the young shoots are an inch or so long, turn the plant out of the pot, shake away a good deal of the old soil, and repot in soil composed of two parts loam, one of leaf-soil, and one decayed manure, with some sand intermixed. Give them a minimum temperature of 50° throughout the summer, and attend carefully to watering; in autumn the temperature must be at least 55°. Give weak manure water when the pots are full of roots.

NAMES OF PLANTS.—W. J. Waterhouse.—a, Osmanthus Aquifolium; b, Epimedium muschianum; c, Omphalodes verna; d, Pulmonaria officinalis; e, Euphorbia Lathyrus. —W. J. P.—Acothanthera spectabilis, a native of South-East Africa. —Adderbury.—Omphalodes verna.—Lieut.-Colonel B. a, Saxifraga crassifolia; b, S. ligulata variety speciosa.

SHORT REPLIES.—John Bellingham.—This epiphytal Fern (Platyceium alaicorne) thrives well in baskets or shallow pans. They may also be grown when attached to a large block of wood, with some peat and sphagnum moss placed round their roots. Most of the species require to be grown in a hot house, but P. alaicorne is a greenhouse one, and, as you have noticed, succeeds well in a room. You would do well to place the plant in a saucer containing water. Being epiphytal, it needs a moist atmosphere, for from this its nourishment is chiefly derived. Shade from the sun and protect from draught. Keep the compost moist. We have quite recently received a photograph and a letter from a German reader who grows it splendidly in his room, placing it in a saucer of water. —James Miller.—The correct name of your plant is Kleinia articulata (Cacalia), a native of South Africa. It will succeed well with greenhouse treatment, potted in well-drained sandy loam, and usually flowers in spring. The flowers are small and yellow in colour, borne in branching panicles. Keep on the dry side during winter, encourage growth during summer, and well ripen off the new growths during the autumn.

BOOKS.

The Book of Topiary.*—There is no question that formal gardening holds an honourable position in the endless variety of garden design. The subject has been argued out over and over again, and at last the most ardent advocate of natural methods is generally bound to admit that a stone-grey Elizabethan mansion may, at any rate, be none the worse for the environment of a geometrical Italian garden gay and sparkling with colour, and that the weathered red brick of the day of Queen Anne does, on occasion, harmonise well with the stiff uniformity of clipped Yew trees and Box. Such a historic formal garden as that of Levens Hall, Westmorland, must be the joy and pride of its owner, and we cannot but feel thankful on public grounds that it was spared with some others of about the same period, in the wholesale destruction of which we read in this interesting little volume. We are averse to its inclusion in a practical series. Topiary work, happily, is an art gone by, at least in England, and while we can heartily sympathise with the desire and effort to perpetuate old traditions, we should regret indeed to see any serious attempt made to revive that art in newly-planned gardens of our own day. The verdant peacock or barndoor fowl of the cottager offends no one. There is no glaring incongruity about it, and the old-world association of the many-tiered Yew with its summit-perched bird is pleasant, while it tells unmistakably that we are not upstart folk of a day in the old-fashioned country-side to which England owes so much. Nevertheless, after turning over with interest the pages of the book in question, we laid it down with a profound sense of relief and satisfaction that the taste of the times had changed. Pigs and poultry and crouching lions, though very noteworthy from a skilful craftsman's point of view, are certainly, even in effigy, unwelcome intruders and out of place in a garden, and the grotesqueness, often a little coarse, which afforded entertainment to our forefathers scarcely appeals in the same way to ourselves; nor would there be any word strong enough to express the unutterable monotony of garden after garden crowded with such crudities. We cannot help regretting that valuable time and trouble should not be more worthily expended than in any effort in these days to return to such distortion of beautiful trees. On the other hand, no exception can reasonably be taken to the formation of close-clipped hedges which, in so many positions, add both to the picturesque effect and the pleasure of a garden, the only regret in this aspect of topiary work being that such hedges take so many years in the making. Beech or Hornbeam boundaries surrounding an ancient bowling-green or forming partition hedges in majestic gardens—some charming examples of which are given in one or two illustrations—and the Yew and Box and Holly screens which we can all recall to mind, perhaps in less imposing positions, are amongst the most delightful features of the gardens we have loved. Suggestive as they are of warmth and comfort, and of the shelter of home against the rude blasts of the outer world, they should be planted wherever space and opportunity permit. Possibly many of us, too, have an affectionate remembrance of the cosiness of some old domed Box bush big enough to have a recess carved out of it to hold a wide bench, where happy hours with book or pleasant company have been spent. Most gardens would be enriched by such a sheltered nook, and the topiarist, past or present, who planted and cared for it would be entitled to all gratitude from our own and from future generations. Here we had better stop, or we shall find ourselves in the attitude of putting up with one hand what we wish to pull down with the other, but as, in the words of its

preface, this "little book is not placed before the public with any fervent hope that it will incite garden lovers at once to sally forth with shears and scissors to attack the nearest Yew tree," nor . . . "issued with a desire that garden-makers may be induced to plant clipped trees extensively," we are quite ready to endorse the modest hope of the authors that it may be thought worthy to find a place in every garden library.

LEGAL POINTS.

QUESTION.—Is it necessary to have a pedlar's licence to hawk one's own garden produce?—J. E. E.

This question confuses two different classes of persons—pedlars and hawkers. There are several distinctions between these classes which should be borne in mind. A pedlar is one who, without any horse or other beast bearing or drawing burdens, travels and trades on foot, and goes from town to town, or to other men's houses, carrying to sell, or exposing for sale, any goods, wares, or merchandise, or procuring orders for goods, &c., to be delivered, or selling or offering for sale his skill in handicraft. A hawker is one who travels with a horse or other animal to draw or carry burdens, and goes from place to place, or to other men's houses, carrying to sell, or exposing for sale, any goods, &c., or exposing for sale samples or patterns of any goods, &c., to be afterwards delivered. The term also includes any person who travels, by any means, to a place in which he does not usually reside or carry on business, and there sells or exposes for sale any goods, &c., in or at any house, shop, or stall. The pedlar does not require a licence, but has to get a certificate from the Chief Officer of Police of the Police District in which he has resided for one month before his application. For this he pays 5s. The certificate lasts one year, and with it he may trade as a pedlar within any part of the United Kingdom. The hawker, on the other hand, has to procure a licence from the Commissioners of Inland Revenue which lasts a year (the year expiring on March 31), and for which he has to pay £2 per annum. There are differences also between pedlars and hawkers as to the sale of garden produce. Sellers of "fruit" and "vegetables" as pedlars need no certificate, whether the fruit is their own produce or not. The Hawker's Act also exempts sellers of "fruit" as hawkers from the necessity of procuring a licence, though it does not specifically exempt sellers of "vegetables." The latter is, however, included in the term "vituals," which are also exempted. Pedlars may not sell without certificate cut flowers, though, strangely enough, the sale of growing plants, unless in pots, seems to be overlooked by the authorities. But hawkers are, possibly, in a somewhat better position as regards this, for there is an exemption in the Hawker's Act, though not in the Pedlar's Act, in favour of the real worker or maker of any goods, &c., and his children, apprentices, and servants usually residing in the same house with him, who are allowed to sell, or seek orders for, without licence, any goods, &c., made by such real worker or maker. It is possible that this exemption applies to a man's garden produce of whatever nature it may be, though this must be taken as doubtful. Hawkers cannot sell cut flowers which are not their own produce without a licence, and the same remark as to growing plants made above seems to apply to them. Our correspondent can therefore safely sell as pedlar without a certificate his fruit and vegetables, and may not be interfered with if he also takes with him his growing plants. As a hawker without a licence he can certainly sell his fruit, also his vegetables, and possibly any other produce of his garden. But he had better not sell without licence or certificate his flowers when cut. The power of trading expressed above must

be taken to be subject to any rules and regulations made by the bye-laws of any town, &c., under proper authority as to permitting peddling and hawking within the district over which they have control.

SOCIETIES.

DUNDEE HORTICULTURAL ASSOCIATION.

THE monthly meeting of the Dundee Horticultural Association was held in the Technical Institute, Dundee, on the evening of the 4th inst. There was a good attendance, presided over by Mr. Richard Cairns, Balruddery Gardens, the president of the association. The paper for the evening was by Mr. John Wilson, Charleton Gardens, Montrose, the subject being "The Cultivation of Vegetables, with Particular Reference to the Potato." Mr. Wilson dealt in a comprehensive manner with the best methods of cultivating the various vegetables grown in gardens, so as to secure the most successful results, explaining the best cultural practice, and also the nature of the action of the different fertilisers used in their culture. Like most successful cultivators of vegetables and plants of various kinds, Mr. Wilson laid stress upon the necessity of thorough cultivation of the soil. He also spoke at length upon the Potato; in the course of his practical remarks, dealing with the best manures for this important crop, and while deprecating the high prices which had prevailed for certain Potatoes, he was of opinion that the net result of the Potato boom would be an improvement in this invaluable vegetable.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE usual monthly meeting of the Scottish Horticultural Association was held at 5, St. Andrew Square, Edinburgh, on the evening of the 4th inst., when there was a good attendance of members, presided over by Mr. J. W. M'Hattie. In addition to several interesting exhibits, an admirable paper on "Garden Coniferae" was read by Mr. David S. Fish, of the Royal Botanic Gardens, Edinburgh. Mr. Fish's paper dealt with the characteristic features of the Coniferae in their nature, foliage, and growth, while many other points of importance in their structure and cultivation were touched upon. Its value was much enhanced by a number of fine limelight illustrations. Mr. Fish was accorded a hearty vote of thanks on the motion of the chairman.

SHEFFIELD HORTICULTURAL SOCIETY.

THE monthly meeting of this society was well attended, though the wintry weather had the effect of keeping many away, snow falling during the evening. An essay by Mr. G. Hoyland on "The Culture of the Primula" was illustrated by some splendid specimens of *Cilibrans* strain of *Primula sinensis*, which were remarkable for the immense quantity of bloom. There were some good specimens of *Cineraria* exhibited in competition for the monthly prizes (professional), and *Hyacinths* by amateurs. The secretary also offers a medal, the competition for which is by points, and this, as usual, brought several exhibits. There are also several special prizes to be competed for which will make the season a very interesting one. The schedule for the annual show has been issued, and a special excursion in connexion with the society will be run to the great Shrewsbury show at the low fare of 6s., including admission. The secretary has arranged to organise a meeting in Sheffield on the 29th inst., when delegates will attend to explain the objects of the British Gardeners' Association, and it is hoped to secure a large gathering. All gardeners will be welcomed, and if not notified should communicate with Mr. Lewendon, the secretary of the Sheffield society.

CROYDON HORTICULTURAL SOCIETY.

THE subject arranged for Tuesday, the 4th inst., was "Hardy Herbaceous Plants," and in the able hands of Mr. E. H. Jenkins, Queen's Road Nursery, Hampton Hill, who is known to be an expert in this branch of horticulture, needless to say it received quite excellent treatment. His experience is gained from many years' close study of these plants, so that his remarks were commendable to all who desired to profit by knowledge gained by culture of the subjects under notice. Since 1870, when the revival of hardy plant culture set in, the vast strides this department has made in the embellishment of our gardens is too well known to need comment. In commencing his paper he alluded to the Iris in all its varieties, and this plant will furnish us with bloom from January to June, making excellent decoration for cool greenhouses in the early months, until the warmer months of April, May, and June, when with the suitable varieties we can look to the outside borders for our requirements. Among other hardy flowers under notice were the *Pæonies*, which should find a place in all gardens, for their magnificent colour and character of bloom are surely enough to recommend them. The best time to remove them is in August, for then the main or tap-root will not be disturbed to injure the plant, as it would be if they were moved in early spring. The *Hellebores*, *Phloxes*, *Michaelmas*, *Daisies*, *Fyethrums*, *Delphiniums*, and *Lathyrus* were, among others, amply described. In each variety he advised the situation found most suitable for their reception and the time of year and method for propagation. In the discussion following many questions were asked of the lecturer, and in his subsequent remarks cultural points were described, which should prove beneficial to the members present. At the

* "The Book of Topiary." By W. Gibson and C. Curtis. John Lane and Co. Edited by Harry Roberts.

conclusion of the paper a very hearty vote of thanks was conveyed to Mr. Jenkins, who suitably replied. Mr. J. Gregory had an interesting exhibit, staging rare specimens of Colonial fruits, including Limes, Citrons, and Bananas, also Oranges and Lemons grown in this country. The meeting's vote of thanks was accorded him.

UNITED HORTICULTURAL BENEFIT SOCIETY.

THIS society having removed from the Caledonian Hotel, held its monthly committee meeting on the 10th inst. at its new headquarters, the Royal Horticultural Hall, Vincent Square, Westminster, S.W. Mr. Charles H. Curtis presided. Eleven new members were elected, making an addition of seventy-four since January last. Sixteen were reported on the sick fund at the present time. The amount of sick pay for the month was £46 7s. Two members were allowed to transfer from the lower to the higher scale. The quinquennial valuation of the society will be placed in the hands of Mr. Thomas G. Ackland. The usual quarterly grants from the benevolent fund were passed. The committee hope that the removal of its headquarters to the Royal Horticultural Hall will be an incentive for many young gardeners to join the ranks of the United.

ROYAL HORTICULTURAL SOCIETY.

FLORAL COMMITTEE: APRIL 11.

THE Rev. G. H. Engleheart, Dinton, Salisbury, showed *Narcissi Will Scarlett*, very fine; *Scarletta*, very fine; *Chaucer poeticus*, Firebrand, Vulcan, Hector, a fine bicolor, and *Virgil poeticus*. There were many good seedlings in this lot. Charlemagne, of Sir Watkin character, was very good.

Messrs. Barr and Sons, Covent Garden, had a choice assortment of Daffodils, such as Big Ben, Peter Barr, Yellow Queen, Mikado, Isolda, Chas. H. Curtis (yellow Ajax), Weardale Perfection, Peach, Ariadne (in the way of Minnie Hums), Henri Vilmorin, and others, in addition to a large general assortment of good kinds.

Some choice *Auriculas* were shown by Mr. James Douglas, Bookham, three of these gaining an award of merit. *Firefly* is a very fine alpine. Dinham, green-edged, and Olympus, green-edged, were among the more conspicuous.

NEW PLANTS.

Corydalis Wilsoni.—A showy species from Central China, with golden yellow flowers and thick glaucous foliage. It is obviously a most profuse bloomer. From Messrs. Veitch and Sons, Limited, Chelsea. Award of merit.

Carnation Harloweard.—A tree variety, with large and handsome crimson-maroon flowers. It is probably the largest in this shade of colour. From Mr. A. F. Dutton, Ivor, Bucks. Award of merit.

Auricula Daffodil.—A fine bright yellow self, with well-defined paste.

A. Favourite.—A strong-growing alpine, with purple-violet flowers and white centre.

A. Standard Beaver.—A large-flowered alpine purple shaded lilac and white centre; very handsome. The above were exhibited by Mr. James Douglas, Bookham, Surrey, and each received the award of merit.

NEW NARCISSE.

Narcissus Alice Knights.—A white Ajax variety, in the trumpet of which there is a slight buff tone. From Messrs. Barr and Sons, Covent Garden. Award of merit.

N. Lord Kitchener.—Virtually a bicolor Sir Watkin, the beautifully refined flower varying in the colour of the crown from lemon to pale sulphur. A very charming flower. From Mrs. Backhouse, Sutton Court, Hereford. Award of merit.

N. King's Norton.—A giant yellow Ajax kind, the huge trumpet and fine perianth of a rich golden yellow. It is a giant in every way. From Messrs. Pope and Son, King's Norton, Birmingham. First-class certificate.

A silver Banksian medal was awarded to the Potato Syon House Prolific, finely shown by Mr. J. B. Joel, Northaw House, Potter's Bar.

A cultural commendation was given to Mr. Dover, Langley Fruit Gardens, Bucks, for an excellent lot of Strawberry Royal Sovereign.

PLYMOUTH DAFFODIL SHOW.

ON the 11th inst. the second annual show of the Devon Daffodil and Spring Flower Society was opened in the Plymouth Guildhall. The show was divided into two sections, one open to all comers, and the other confined to residents in the county of Devon. Ample evidence was afforded that the endeavours of the committee to popularise the cultivation of the *Narcissus* in the county had been attended by success, 104 entries being staged by residents in Devon in the classes devoted to that flower, while for the premier county class, for fifteen varieties of *Narcissus*, twelve very good stands competed. The class for twenty varieties of hard wooded flowering shrubs grown in the open air was the best ever seen in the south-west, where alone such a display early in April would be possible, all the eight exhibits being fully worthy of prizes. The first-prize stand for twelve varieties of hardy spring flowers in the open section was of great excellence.

PRIZE LIST.

Forty varieties of Daffodils: First, the Rev. A. T. Boscawen, with a very bright stand containing Will Scarlett and many other novelties. Twenty varieties: First, Mr. E. H. Williams; second, Miss M. Williams. Twelve varieties: First (equal), the Hon. John Boscawen and Mrs. W. Tyacke. Group of Daffodil seedlings not in commerce: First, Mr. J. C. Williams with twelve beautiful unnamed seedlings, four being superb white trumpets, and three fine varieties of the poeticus section.

Twelve Magni-coronati: First, the Rev. A. T. Boscawen; second, Mr. R. H. Clay. Twelve Medio-coronati: First, the Rev. A. T. Boscawen; second, Mr. E. H. Williams. Six Magni-coronati: First, Mr. C. Matthews; second, Miss M. Williams. Six Medio-coronati: First, Miss M. Williams; second, Mr. C. Matthews. Six varieties Daffodils: First, Mr. G. Soltan-Symons; second, Mr. T. Buncombe. Single bloom Magni-coronati: First, Mrs. W. Tyacke with Weardale Perfection. Single bloom Medio-coronati: First, Mr. C. Dawson with Homespun. Single bloom Parvi-coronati: First, Mr. E. H. Williams with Cassandra.

Collection of twelve varieties of hardy spring flowers: First, Rev. A. T. Boscawen, whose stand contained Echium callithyrum, Antholyza coccinea, Myosotidium nobile, Erythronium Johnstoni (18 inches high, with five flowers on a stem), Fritillaria reticulata alba, and other flowers. Group of Rhododendrons: First, Mrs. Coryton. Six trusses of Rhododendrons: First, Mrs. Coryton.

Twenty varieties of hard-wooded flowering shrubs grown in the open: Silver cup, the Earl of Mount Edgumbe, with a splendid collection containing Correa cardinalis, C. bicolor, and other rare shrubs; second, Rev. A. T. Boscawen. In the equal third stand of Mrs. Coryton was the rarely seen *Neviusia alabamensis*. So good was this class that the judges were occupied for half an hour in deciding the destination of the prizes. The fact that the rule limiting the length of the sprays to 2 feet was not rigidly observed in the third-prize stands somewhat affected the decision.

OPEN ONLY TO THE COUNTY OF DEVON.

Fifteen varieties of Daffodils: First, Mr. G. Soltan-Symons; second, Mr. H. G. Hawker. The second prize in this class was at first awarded to the Earl of Morley, but this stand was subsequently disqualified owing to its not containing a specimen of Parvi-coronati, as required by the rule. Six Magni-coronati: First, Mr. G. Soltan-Symons. Six Medio-coronati: First, Mrs. J. Yonge. Six Parvi-coronati: First, Mr. G. Soltan-Symons. Three Magni-coronati: First, Mrs. H. G. Hawker. Single bloom Magni-coronati: First, Mrs. H. G. Hawker with Weardale Perfection. Single bloom Medio-coronati: First, Mr. G. Soltan-Symons with Gloria Mundi. Single bloom Parvi-coronati: First, Mr. H. G. Hawker with Horace. The prize for the best Daffodil bloom in the show was won by Mrs. W. Tyacke with a superb Mme. de Graaff, and the silver cup presented by Messrs. Barr and Sons for the best group of *Narcissi* was awarded to Mrs. Mallock.

Twelve varieties of hardy spring flowers: First, Mr. G. Soltan-Symons, whose stand contained *Iris tingitana*; equal third, Mrs. Bainbridge and Mr. R. Watts. Five *Auriculas*: First, the Earl of Morley. Six *Auriculas*: First, Captain Parby; second, Mrs. Bainbridge.

Among nurserymen Messrs. R. Veitch and Son, Exeter, had an interesting stand containing *Corydalis thalictroides*, *Carex Fraseri*, *Lithospermum angustifolium*, hybrid *Amaryllis*, *Primula kewensis*, *Shortia galacifolia*, *Veronica saturioides*, and numerous alpine and flowering shrubs. This firm was awarded the society's silver-gilt medal. The Devon Rosery, Torquay, staged a fine collection of pot roses in full bloom (silver medal). Messrs. Barr and Sons showed an extensive selection of the best and newest Daffodils (silver medal). Messrs. Chalice and Son, Plympton, showed *Cotoneaster angustifolia*, *Rehmannia angulata*, *Jasminum primulinum*, *Cytisus purpureus pendulus*, and other plants (silver medal); and Messrs. Saunders and Biss, horticultural builders, Exeter, exhibited photographs and sections of their new glazing.

LATE NOTES.

Mr. Edward Webb of the firm of Edward Webb and Sons, Wordsley, Stourbridge, has been appointed High Sheriff of the county of Worcester.

Presentation.—On the 5th inst. a presentation was made to Mr. William Gray, gardener to Mr. Brown, of Knockbrenx, Borgue, Kirkcudbrightshire, as a mark of esteem on the occasion of his leaving that place for a more important appointment at Cessnock Castle, Ayrshire, one of the seats of his Grace the Duke of Portland. The presentation consisted of a purse of sovereigns, and was suitably acknowledged by Mr. Gray, whose departure from Knockbrenx is a matter of much regret to many friends.

The fruit industry of Great Britain.—The Departmental Committee appointed by Lord Onslow to enquire into and report upon the fruit industry of Great Britain held sittings on the 5th and 6th inst. The following members were present: Mr. A. S. T. Griffith-Boscawen, M.P. (chairman), Colonel Long, M.P., Mr. C. W. Radcliffe-Cooke, Mr. Monro, Dr. Somerville, Mr. P. Spencer-Pickering, M.A., F.R.S., the Rev. W. Wilks, M.A., and Mr. Ernest Garnsey (secretary). The committee had under their consideration the draft report prepared by the chairman.

FORTHCOMING SHOWS.

April 25.—Royal Horticultural Society's Meeting (*Auricula* and *Primula* Show); Chesterfield Horticultural Show.

May 9.—Royal Horticultural Society's Meeting.

May 11.—Annual Dinner of the Royal Gardeners' Orphan Fund, Hotel Cecil.

May 17.—Royal Botanic Society's Show, Regent's Park.

May 23.—Royal Horticultural Society's Meeting (*Tulip* Show).

May 24.—Royal Caledonian Horticultural Show at Edinburgh (two days); York Society of Florists' Show.

May 30.—Royal Horticultural Society's Temple Show (three days); Bath and West of England Show (five days).

June 1.—Rhododendron Exhibition, Botanic Gardens, Regent's Park, throughout the month.

June 7.—Royal Botanic Society's Show (three days).

June 16.—Gardeners' Royal Benevolent Institution Annual Dinner.

June 20.—Royal Horticultural Society's Meeting; Salterhebble Flower Show.

June 21.—York Gala (three days).

June 27.—Oxford Commemoration Show.

June 28.—Southampton Rose Show (two days); Richmond (Surrey) Horticultural Show.

June 29.—Colchester Horticultural Show.

July 4.—Royal Horticultural Society's Meeting; National Sweet Pea Society's Show; Sutton Rose Show.

July 5.—Tunbridge Wells, Hanley (two days), and Croydon Flower Shows.

July 6.—National Rose Society's Show; Sidcup Flower Show.

July 11.—Wolverhampton Floral Fête (three days).

July 13.—Woodbridge Horticultural Show.

July 18.—Royal Horticultural Society's Meeting (*Carnation* and *Picotee* Show); National Rose Show at Gloucester.

July 19.—Newcastle-on-Tyne Flower Show (three days); York Florists' Show.

July 25.—Tibshelf Horticultural Show.

July 26.—Southampton Carnation Show and Cardiff Flower Show (two days).

August 1.—Royal Horticultural Society's Meeting.

August 2.—Chesterfield Horticultural Show.

August 7.—Lichfield, Wells, Mansfield, Grantham, and Ilkeston Flower Shows.

August 9.—Bishop's Stortford, Tavistock, and Ventnor Horticultural Shows.

August 15.—Royal Horticultural Society's Meeting; Clay Cross Horticultural Show.

August 16.—Calne and Harpenden Flower Shows.

August 17.—Dyffryn District and Taunton Deane Horticultural Shows.

August 19.—Seascale and Lake District and Sheffield Flower Shows.

August 21.—Warkworth Horticultural Show.

August 22.—Rothsay and Oxford Flower Shows.

August 23.—Shrewsbury Floral Fête (two days).

August 24.—Aberdeen Flower Show (three days).

August 26.—Jedburgh Horticultural Show.

August 29.—Royal Horticultural Society's Meeting.

August 30.—Bath Flower Show (two days).

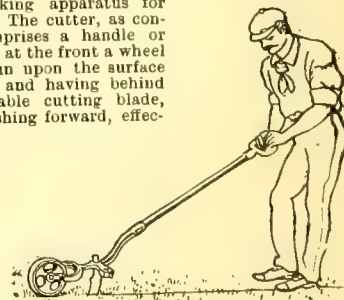
August 31.—Ellesmere and Sandy Horticultural Shows.

TRADE NOTE.

TURF CUTTING MADE EASY.

THE Optimus Turf Cutter, patented by Messrs. Corry and Co., Limited, 13-15, Finsbury Street, E.C., supplies the want so long needed for a rapid and easy-working apparatus for cutting turf.

The cutter, as constructed, comprises a handle or frame, having at the front a wheel adapted to run upon the surface of the grass, and having behind it an adjustable cutting blade, which, by pushing forward, effectually makes the desired division in the turf. The knife can be adjusted by screw action to suit any depth required, and suitable to the height and habit of the worker. It is also adaptable as an edge cutter when required by removing the knife and fixing it to the side arm provided for this purpose.



GARDENING APPOINTMENT.

MR. SAMUEL G. SHIELDS, for the last two and a-half years foreman in the gardens at Mount Melville, St. Andrews, N.B., as head gardener to Sir Edward Stewart Richardson, Pitfour Castle, Glencarse, Perthshire.

*. The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 6d.

THE GARDEN

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APRIL 29, 1905.

THE RETARDING OF POTATOES.

AN interesting lecture was delivered on this subject, at a meeting in the hall of the Royal Horticultural Society, on a recent Tuesday, by Mr. Powell of Park Place Gardens, Henley-on-Thames. Mr. Powell, it seems, has had the possibility of producing a crop of young Potatoes in autumn, winter, and spring, from old retarded tubers, under consideration for some years. At an exhibition in the same hall last November he had a collection of these Potatoes in actual bearing, as well as samples cooked for testing their quality, which was certainly excellent. This method of growing Potatoes is not a new discovery, but to Mr. Powell belongs the credit of having given practical shape to a method of producing new Potatoes in winter, which had previously only been regarded more or less in the light of a curiosity. Mr. Powell has proved that the system can be followed successfully either on a large or small scale, and that by its adoption the luxury of having new Potatoes may be enjoyed by all who may care to put the system into practice throughout late autumn, winter, and spring. He even goes so far as to say that it opens out a fair prospect of success to those who may be tempted to embark in the business commercially.

The process is very simple, and may be stated in a few words. Those who wish to try the plan have only to keep back some of the seed Potatoes which they would otherwise plant this spring in the ordinary way. Place the Potatoes in single layers in a cool position in any out-of-the-way place, such as a loft, shelves, cellars, or any other available cool place with a temperature of 45° or thereabouts. The Potatoes must be occasionally looked over, and the young growth of the haulm, which will appear persistently for a time, must as persistently be removed as soon as it appears. This is important, as it prevents the exhaustion of the tissues of the Potato in the production of leaf-growth. This will have exhausted itself by about the middle of August, and the tuber, as though to assert its vitality and continued power of growth, will now resort to another form of growth, namely, the production of young Potatoes on the old tuber instead of haulm.

Mr. Powell stated that for the first autumn crop of young Potatoes to be produced by this system the retarded old tubers may be planted in the open ground (about 10 inches apart) in a warm position and a light soil towards the end of August, when new Potatoes may be picked towards the end of October or early in November. The danger from frost would make it inadvisable to plant successional crops out of doors, but empty frames or cold pits would be suitable, or even boxes, shelves, or the floor of a shed or loft where some light, dry soil in sufficient quantity to cover the Potatoes could be placed, and a temperature of about 50° maintained. A few degrees more or less would not matter. By planting batches fortnightly in this way a constant supply could be kept up throughout late autumn, winter, and spring. The variety Windsor Castle is recommended as one of the best to plant, but other varieties would succeed.

No doubt the paper will be published in due course in the Journal of the Society, and be therefore at the service of all the Fellows. It seems to us that the system offers an economical way for anyone in town or country to produce a supply of new Potatoes for many months in the year, and at a time when they would be much appreciated.

ENGLISH *v.* AMERICAN APPLES.

A DISCLAIMER.

IHAVE been taking a long rest at Mentone, and had not seen *THE GARDEN* since January 7. I regret to note that the remarks I made in a little talk at the Maidstone Farmers' Club have been reported in such a misleading manner. My lecture was to fruit growers, and I had already quoted and enlarged upon the best dessert Apples, and suggested to those present that, as the American Apples were ill suited for cooking purposes, being leathery in texture and too sweet for British tastes, there was, in my opinion, an opening for producers to plant freely those large kitchen Apples that came for use about Christmas, after mentioning Bismarck, Lord Derby, Tower of Glamis, Lane's Prince Albert, Bramley's, Newton Wonder, and Hambling's Seedling for this purpose. The reporters twisted this into a dictum of mine in condemnation of British dessert Apples, and the editor, on their report, wrote a paragraph, "For my part, if there is

a better than Cox's Orange Pippin I have not come across it."

Notwithstanding the sweeping statements of some of your writers, I must most strongly assert, after an experience of fifty years, that for dessert or cooking there are no foreign Apples to approach those grown in Britain when they are well cultivated and placed on the market in fine condition. At page 43 Roundway Magnum Bonum is named as the best for eating. I freely agree to this, but the fruits are large for dessert and not taking in appearance, but when cooked in a tart or baked these big fruits are superb, and have a flavour that needs neither cloves nor sugar to back them up. Another writer says it is quite worthless. Has he the true sort or is his soil unsuitable? At page 59 Pine-apple Russet is recommended. I knew this fifty-five years back, and the tree never had a satisfactory crop, and was a very awkward grower, so that planters should omit it. Christmas Pearmain is also well spoken of. It has improved greatly since I introduced it, and in 1905 the original tree had the largest crop of any Apple in the nursery, and was the admiration of all visitors.

Peasgood's Nonesuch does not seem to find favour with some. When fully ripened I have found it fit for table use and a good cooker. The varieties Chelmsford Wonder, Hambling's Seedling, Byford Wonder, Annie Elizabeth, Norfolk Beauty, King Edward VII., Newton Wonder, Sandringham, Bramley's Seedling, Wagener, and Ontario are all fine late kitchen Apples to meet the demand for a more reliable late cooking fruit than Wellington (which on standards gives so many small fruits, and is very tender and liable to canker), thus anticipating Mr. Engleheart's remarks on page 126. I feel sure that ninety-five out of every hundred people would not follow my friend Mr. Engleheart's desire for yellow-fleshed, waxy Potatoes, nor could more than 5 per cent. be found to agree with him as to Newtown Pippin being superior to our British Apples; but these are matters of taste, and therefore everyone is entitled to an opinion. Again referring to page 155, the list of first-class dessert Apples after Christmas would include such sterling fruits as Adams' Pearmain, Mannington Pearmain, Scarlet Nonpareil, Old Nonpareil, Lady Henniker, of rich Blenheim flavour, Claygate Pearmain, Norman's Pippin, Golden Reinette, Reinette du Canada, and even up to April and May Lord Hindlip, Lord Burghley, the Essex d'Arcy Spice, Duke of Devonshire, Rosemary Russet, Fearn's Pippin, Allen's Everlasting, and, finally, Sturmer Pippin and its improved form, King's Acre Pippin. These, if well ripened and carefully stored, keep fresh, and are all first rate. On page 156 Gravenstein is named. I consider this very fine fr h

from the tree, but I have found it to be only a cooking sort when stored. The tree is a sparse bearer, too.

I trust, Mr. Editor, you will excuse this long letter, but it seems called for, not only by the remarks in your paper, but by the private letters received, which compel me to refute such "heresy" as is implied in giving preference to American and Canadian Apples over British produce.

Maidstone.

GEORGE BUNYARD.

THE EDITOR'S TABLE.

AURICULA SEEDLING.

"Hayward's Heath" sends a flower of a seedling Auricula, but without special merit. It is large and sweetly scented, one of those good things for the hardy border in spring.

VIOLET PRINCESS OF WALES.

Mr. J. R. Batty, The Gardens, Skelton Castle, Skelton-in-Cleveland, Yorks, sends flowers of the well-known Violet Princess of Wales, with the following note: "I send for your table a few flowers of Violet Princess of Wales. It is so satisfactory with us that no other sort is grown, and it stands the cold better than most varieties. They were planted in a cold frame at the beginning of last September, and at the end of October we were able to start picking, and have kept on gathering ever since. Our treatment is as follows: After the blooming is over we take off the runners and plant them in a west border. During growing time they are given a slight dressing of blood manure, also when in full bearing in the frame we prick in a little amongst the plants. We never use any other manure, and I think the flowers and foliage show that they enjoy the treatment."

CHRYSANTHEMUM FRAMFIELD PINK.

Mr. Charles Hobbs sends flowers of this Chrysanthemum from The Gardens, Petersham Place, Byfleet, Surrey, with the following note: "I am sending you some Chrysanthemum blooms of the variety Framfield Pink, which I think are very good for this season." We have rarely seen them so good at this time of year. Mr. Hobbs placed the plants in a cool vinery last November, and they were nipped by frost on one or two occasions. As the house was closed this spring they started into growth, and were assisted by weak supplies of liquid manure occasionally.

SEEDLING POLYANTHUSES.

From Forde Abbey Gardens, Chard, Mr. J. Crook sends a boxful of splendid blooms of his famous strain of Polyanthus. The flowers are large, some in bunches, others singly, in some lovely shades of colour. They range from white, through cream, yellow, orange, crimson, marone, and purple, and we can quite believe that, as Mr. Crook says, they are making a grand display in the garden. Mr. Crook has succeeded in producing a very fine strain of this indispensable garden flower.

CLIVIA MINIATA.

Mr. Field sends from Ashwellthorpe Gardens flowers of *Clivia miniata*; they were superb. Our correspondent writes: "This is one of the most useful of plants for the decoration of the conservatory or greenhouse during the spring months. It is of very easy culture, of robust growth, and the leaves are of a lustrous green."

APPLE NORFOLK BEAUFIN.

Mr. Field also sends excellent fruits of this Apple, which "is one of the most useful sorts grown. The fruits find a very ready sale in the market at this season of the year, and fetch a

good price. The trees are vigorous growers when young, and on wet soils apt to canker; but if planted on a dry soil in a favourable situation they succeed remarkably well."

PERFECTION OF SHAPE IN TRUMPET DAFFODILS.

Mr. Hartland of Cork sends remarkably fine flowers of the following Narcissi: Bicolor Empress, Emperor, Horsfieldi, Mme. de Graaf, and Jenny Woodhouse, which is the most perfect in shape of all. It is an exquisite flower, with white segments and a neat yellow cup. Our correspondent sends the following note: "I send you a few blooms of the Narcissus Jenny Woodhouse. It is a small white flower about the size of the Tenby Daffodil. It should be the aim of all raisers of new sorts of the trumpet class to obtain flowers of good shape. Queen Victoria is a good model flower, so is Lorna Doone, but of different form. My new seedling, Baylor Hartland, is similar to Jenny Woodhouse, but very much larger. Lorna Doone is a Narcissus of very distinct shape and colour."

THE PASQUE FLOWER.

From The Mall, Armagh, Mr. J. McWalters sends a delightful gathering of *Anemone Pulsatilla* with this note: "I send you some flowers of seedling Anemones, which at present are very decorative in the garden. In the bright April sunshine they are charming. Many of the clumps are crowded with bloom, and there is some variation both in form and tint. I also send blossoms of a very elegant little dwarf shrub, which is very ornamental in the rock garden, *Pyrus* (syn. *Cydonia*) *japonica pygmaea*."

NOTES OF THE WEEK.

The season and its flowers.—It is some years since there was such a wealth of bloom on ornamental flowering trees as there is this spring, while fruit trees are also showing splendidly, so that if severe frosts keep away there should be a good crop of fruit this year. Last year there were plenty of flowers on almost all trees, but this spring it is very much heavier and better, showing the effects of the good weather experienced last summer and the thorough ripening of the wood in the autumn. The Almonds, double-flowered Peaches, and *Prunus Pissardi* have been masses of bright pink or white; *Amelanchier canadensis* is now (the 15th inst.) a sheet of white; while double pink, double white, and other Cherries are crowded with flower-buds, which will open in the course of a few days. *Pyrus floribunda*, *P. baccata*, *P. spectabilis*, and all the other flowering Crab Apples will be in full bloom shortly, and, judging from the buds, the wealth of flower will be all that can be desired. Plums, Cherries, and Pears are full of flowers and half-opened buds, and if we can escape spring frosts there will be a grand crop of fruit. Apples are on the move, and promise well for bud. Such shrubs as *Daphne*, *Forsythia*, *Spiraea Thunbergi*, *Pyrus japonica*, &c., have either flowered or are dowering grandly, and have fully justified the praises bestowed on them by those who grow them. In addition to the quantity of bloom this spring, it is noticeable how deep and full the colours are, and also the length of time that nearly everything keeps in flower.—J. CLARK.

British Gardeners' Association.

In addition to those previously reported meetings have been held: At Penrith on the 5th inst. at the Exchange Hotel, Mr. A. Statham of Edenhall Gardens presiding over a good attendance of local horticulturists. The objects of the association having been explained by Mr. J. W. Mallinson, it was, after a good discussion, unanimously resolved "that a local branch of the British Gardeners' Association be formed." Mr. Mallinson, whose

address is Edenhall, Langwathby, R.S.O., Cumberland, readers in the district are requested to note, was appointed local secretary. A special general meeting of the Tunbridge Wells Gardeners' Association was held in the Friendly Societies' Hall on Tuesday, the 11th inst., to hear an address by Mr. W. Watson, secretary of the British Gardeners' Association. Mr. C. Taylor, of Messrs. Cripps and Son, occupied the chair, and about 160 members and others were present, including the principal gardeners and nurserymen of the district. Mr. Watson's address was on the same lines as that given at Birmingham, Kingston, &c. A resolution to form a branch of the British Gardeners' Association for Tunbridge Wells and district was adopted with only three opposing, and a committee was at once elected with Mr. Goacher as secretary. At Sutton on the 11th inst. a meeting convened by the local horticultural society was addressed by Mr. R. Hooper Pearson.

Potato Syon House Prolific.—At

the meeting of the Royal Horticultural Society at Westminster, on the 11th inst., the fruit committee gave the above Potato a first-class certificate for its good qualities as a late variety, and as this award was given unanimously it makes it more gratifying to the exhibitor, Mr. J. May (who is a well known grower of vegetables), Northaw House, Potter's Bar, and to the raiser also, Mr. G. Wythes, Syon House, Brentford, that a Potato that has been grown for nine years in the same garden without change of seed, is at the present time worth such an award, especially when so many new varieties have been boomed to such an extent that older kinds of proved worth are almost lost sight of. It is just ten years since this variety received an award of merit, and this after trial in the society's gardens at Chiswick. Since then the award has been confirmed on different occasions. The tubers staged by Mr. May were noticeable for their perfect shape and good keeping. Unfortunately, by some means this tuber has been described as an early variety, but this is wrong; it is late, though it matures early and is fit for use when lifted, but it keeps well into the spring and retains its colour. Mr. May also, in addition, received a silver medal for the exhibit staged, the tubers being shown in flat baskets in an unwashed state. Certainly there was no fault to be found with them as regards shape. A few were a trifle large, but this was by no means a drawback.

Henry Eckford testimonial.—The

subscriptions to this fund received up to Saturday evening, the 15th inst., are:

	Shgs.		Shgs.
Previously acknowledged	250½	Messrs. Haage and Schmidt	.. 5
Mr. R. Cock	.. 2	Mr. H. Shane	.. 2½
Mr. S. B. Dicks	.. 1	Mr. J. Wright	.. 10½
R. ..	.. 2		

Midland Daffodil Society's show.

A full report of this society's show, which was held on the 18th and 19th inst., is given on another page.

Rainfall for March, 1905.—

March 2nd, '16; 6th, '11; 8th, '07; 9th, '76; 10th, '16; 11th, '46; 12th, '39; 13th, '30; 14th, '45; 15th, '78; 16th, '73; 17th, '28; 18th, '06; 19th, '17; 24th, '35; 26th, '06; 27th, '43; 28th, '05; 29th, '70; 30th, '05; 31st, '05; total, 7'57.
—A. J. KEEN, *Buckland Gardens, Bulch, R.S.O., Breconshire.*

Daffodils at Long Ditton.—The

flowers in Messrs. Barr's nursery at Long Ditton are very beautiful at the time of writing, especially the seedlings. We shall give full notes in an early number.

The Fruitarian Society will hold its

annual meeting, to be followed by a dinner, at the Holborn Restaurant on May 24 next. Dr. Josiah Oldfield, the president, will occupy the chair.

London Dahlia Union.—The annual show of this society will take place in the Prince's Hall of the London Exhibitions, Limited, at Earl's Court on Tuesday and Wednesday, September 19 and 20. Miscellaneous exhibits are invited. The Hobbies Challenge Cup, value ten guineas, is offered for the best amateur exhibit of nine varieties of Cactus Dahlias in bunches of three blooms. The secretary is Mr. Richard Dean, 7, Marlborough Road, Ealing. Mr. Dean draws attention to his change of address.

Fruit industry of Great Britain. The Departmental Committee appointed by Lord Onslow to enquire into and report upon the fruit industry of Great Britain held sittings on the 12th and 13th inst. The following members were present: Mr. A. S. T. Griffith-Boscawen, M.P. (chairman), Colonel Long, M.P., Mr. C. W. Radcliffe-Cooke, Mr. Vinson, Mr. Monro, Mr. P. Spencer Pickering, M.A., F.R.S., the Rev. W. Wilks, M.A., and Mr. Ernest Garnsey (secretary). The committee had under their consideration the draft report prepared by the chairman.

Calceolaria violacea.—This is one of the true species of Calceolaria, and a delightful garden plant, very distinct in appearance from any of the others. It is of a decidedly shrubby character, and forms a much branched bushy specimen clothed with coarsely serrated hairy leaves, while the flowers, which are more open than in Calceolarias in general, are in shape a good deal like a helmet, their colour being a kind of violet-mauve, dotted inside with purple, where there is also a central tinge of yellow. When in a thriving state this species will continue to flower for a considerable time. It is a native of Chili, from whence it was introduced in 1852, but, though by no means of difficult culture, it is a plant rarely met with.—H. P.

Forsythia viridissima.—This is just now a conspicuous feature in the new plantations carried out by the District Council of Acton, which body have now filled in and planted some ugly ponds on the side of the Uxbridge Road between Acton and Ealing, and beautified these spots in a most satisfactory manner. There is a judicious mingling of evergreen and deciduous shrubs, and among the latter several densely-flowered examples of the Forsythia attract much attention from passers-by. Councils do wisely in beautifying their districts, and thereby make them attractive to would-be residents.—R. D.

The Royal Ulster Agricultural Society will hold a flower show on Thursday and Friday, July 6 and 7, at Balmoral, Belfast. Mr. Kenneth Macrae, 7, Donegal Square, West Belfast, is the secretary. Roses form an important item in the schedule, while there are classes for Sweet Peas, Violas, alpine plants, Begonias, and fruit.

Caladiums at Messrs. J. Laing and Sons.—This firm has long been noted for their fine collection of Caladiums, and at the present time the extensive collection is well worth a visit. They are, perhaps, too tender to take out for exhibitions yet, but with the newly-developed leaves the colours are better seen than when they are further advanced. The colours, which vary from clear white to the richest crimson, present a more attractive appearance than when seen at shows during the summer. The varieties are so numerous and varied that it is difficult to make a selection, but in going through the collection I made notes of a few which should find favour with all lovers of these beautiful plants. Before enumerating them I would like to say that the smaller or moderate-sized plants are the more useful, and show the qualities of the various sorts better than large specimens. Of the sorts noted, Earl Derby, soft flesh-pink, long semi-transparent leaves; Alexander III., bright red, with a well-defined green margin; Exquisite, pale red, with a yellow-green margin; Silver Queen, the best white-leaved; Golden Queen, the

most distinct yellow; Maracame, soft flesh-pink; Pierpont Morgan, bright pink, with a well-defined green margin; Edith Luther, bright pink, with a bronzy shade; Marquis of Camden, bright red, dark veins, and green margin; Mrs. Luther, bright red, dwarf and compact; and many others were equally worthy of note. The plants as grown at this nursery are seen to the best advantage when potted in rich light compost, given plenty of room, and only just sufficient shade to break the bright rays of the sun. They have to be kept warm and moist while growing, but later on the temperature may be lowered and the foliage will improve in substance. To keep Caladiums going they must not be allowed to get dry or subject them to a sudden fall of temperature. Liquid manure may be used freely.

The Daffodil fly.—In a recent number of THE GARDEN a correspondent writes about the Daffodil fly. I think your readers will like to know that in the Journal of the Royal Horticultural Society for September, 1902, the editor, Mr. Wilks, gave an exhaustive treatise on this subject, so important to lovers of the Narcissus tribe. The article is illustrated by a drawing reproduced from *Gardening Illustrated*. It shows a section of a Daffodil bulb with Merodon equestris and its grub. At the time the article appeared I happened to be planting a large quantity of bulbs which I had procured from a well-known bulb firm, and I examined the bulbs carefully. Out of 1,000 one or two were suspicious, and were destroyed. I do not think I have been troubled with this pest. Some of the plants seem a little weaker this spring, but this may be owing to overcrowding, as they have not been disturbed since 1902.—A. DE L. L.

New double Primroses.—A short time ago you published a note from me regarding some experiments in the raising of Primroses by Mr. P. Murray Thomson, the secretary of the Royal Caledonian Horticultural Society, and which had resulted in the production of several double Primroses and Polyanthus. One is glad to be able to say that the flowers produced this year are finer than those which appeared in 1904, and some promise to be great acquisitions to our stocks of such flowers. Out of a few seedlings in my own garden I have only had one double so far. This is purple with a pretty appearance and of the Polyanthus character. It produces a good deal of pollen, and will thus be valuable for fertilising purposes, apart from its own beauty. Mr. Murray Thomson has, however, sent me blooms of several other varieties raised from his seed, and grown in the garden of the late Mr. Patrick Neill Fraser at Rockville, Edinburgh. Some of them are finer than any which appeared last year, and some are better than that which has bloomed with me. There is a capital white, or rather creamy white, very double, and of good size and shape. That which I prefer, however, is a very fine purple one, slightly flecked at the margin with white, and of superb form and quite double. There are some pretty rosy coloured forms, some rosy purple, and others showing a tendency to approach to the blue we have now secured in the single Primroses. The appearance of these Primroses and Polyanthus is a hopeful sign for the future, as it is well known that many of the old doubles are weak growers, probably owing to continual propagation by division. As formerly mentioned, the origin of these flowers is very interesting. A white Primrose was crossed with pollen from the double one called Platypetala. The result was pink Primroses and Polyanthus, which were single and had no whites among them. The doubles are from these naturally fertilised and cross-fertilised with each other. I hope that Mr. Murray Thomson may be induced to propagate these doubles, and eventually to place them in the hands of some of the trade for distribution in order that they may ultimately reach those who admire the interesting double Primroses and Polyanthus.—S. ARNOTT.

A new Heath.—Visitors to Kew have now an opportunity of seeing this handsome hybrid at its best and of comparing it with its parents, all these being in bloom close together in the Erica collection near King William's Temple. On two occasions this spring Mr. Veitch of Exeter, who is distributing the plant, has exhibited it at the Horticultural Hall. On the first occasion it was not fully in bloom, but on the later date, March 14, it was in first-rate form, and an award of merit was obtained for it. Seen alone when out of flower it might readily be mistaken for a dwarf-growing *E. lusitanica*, but when seen side by side with its parents, *E. lusitanica* and *E. arborea*, it is quite distinct. At Kew it is considered to be an improvement on both parents, being dwarfer and more compact in habit, blossoming more freely, and having, if anything, whiter flowers. The flowering period is a lengthy one, for while many blooms open early in March, it is at its best during the month of April, and in mid-May it is still in flower. The flowers partake of the characters of both parents. The corolla is about the same length, but rather wider than that of *E. lusitanica*, and, as in that plant, the flowers are fragrant. In *E. lusitanica*, the anthers are dark red or reddish brown, while in *E. arborea* they are bright pink, but in the hybrid the colour is intermediate. The stigma of *E. lusitanica*, again, is red, and very little wider than the style, while that of *E. arborea* is white and flattened out, that of the hybrid being pink in colour, and almost as wide as that of *E. arborea*. Another instance in which characters from both parents are seen is the manner in which the flowers are grouped together, *E. arborea* bearing larger clusters than *E. lusitanica*, *E. Veitchii* being between the two. The leaves more closely resemble those of *E. lusitanica*. At Kew it has been grown for several years, the largest plant being now from 2 feet to 2½ feet high and the same through. Each year it blossoms profusely, and from its behaviour it may certainly be classed as one of the best of the hardy Heaths.—W. DALLIMORE.

THE ROSE GARDEN.

BRILLIANT CLIMBING ROSES FOR
AUGUST AND SEPTEMBER.

NO more valuable Rose has been introduced for many years than Grüss an Teplitz. If we want a brilliant autumnal bedder we can have it, or, if it is desired to have a bright pillar or arch, this Rose will give us all that we can reasonably desire. In its beautiful flowers there is the velvety shading of a Charles Lefebvre, with the fragrance almost of a La France. Being such an excitable variety in spring, its growths are so prominent that too frequently the tender shoots are injured by frost; but if this is so the second growths recover and blossom freely. Another beautiful variety is François Crousse. This has a bud almost as perfect as A. K. Williams. The expanded flowers, however, do not come up to that standard, but for a climber its quality is really good. Another brilliant Rose, and one deserving of a more extended culture, is Climbing Cramoisi Supérieure. For a south wall or for a pergola there is no more beautiful scarlet Rose than this, but it should be given a sheltered situation. For moderate pillars Gloire des Rosomanes and China Rose Fabvier are two first-rate kinds. They are semi-double, but none the less beautiful on that account. P.

ROSE APOTHEKER G. HOFER.

This is a hybrid Rose of great promise for town gardens, or for growing as a single bush in the flower border. Having some of the blood of Caroline Testout in its constitution, naturally the flower is loose and showy. Its colour is a vivid

rose, almost crimson. As a garden Rose I believe this variety will become a valuable addition to the type, of which Frau Karl Druschki is a good example. It does not possess the form of that glorious Rose, but it surpasses it, if anything, in vigour. It always seems to me unreasonable to cut away the fine growths that every year we are obliged to do on some of our vigorous growers, simply because unless pruned they would smother the others. The great thing to remember is to give such free growers ample space to develop. P.

ROSE MRS. THEODORE ROOSEVELT (HYBRID TEA).

WE have in this variety a most useful addition to the popular group of Hybrid Teas. So perfect is it in shape that I believe it will be good enough for exhibition. The flowers are of splendid texture, lasting well and standing rain better than many sorts. It is said to be a seedling of La France, but I imagine that is guess work. The colour is a beautiful creamy white, with a flushed centre of delicate pink. It is very double, and is produced in fine clusters, which require much thinning if wanted for exhibition. The growth is free and good.

RAMBLER ROSES FLOWERING BADLY.

THE paucity of blossom in Roses of the Aglaia type is entirely the fault of the grower. I do not say that Aglaia will flower freely at first, but if a three-year old plant is not one mass of bloom in summer the cultivator is responsible. What these glorious Roses require is thoroughly opening out, so that sunlight and air can play freely about their growths. It is because of this that one recommends summer pruning for such Roses. Some of the finest Crimson Ramblers I saw last summer had fine long growths spread out on either side of an arch, but running parallel with the path. These long growths were covered with bloom, whereas had they been bunched up upon the arch only such eyes would blossom as were not smothered. Instead of bunching up the growths allow some to go free. The beautiful Rose first named (Aglaia) is often found to be a perfect thicket of growth, and a constant source of grief to the owner, because of the very meagre blossom. But just take away some of the oldest growths right to the base and distribute those retained at least 3 inches or 4 inches apart, and the result will surprise and delight the grower. P.

HISTORICAL NOTES ON NEPENTHES.

IN connexion with two or three undescribed species of this genus, I have examined many others and studied the early literature of the subject, with the result that I think some of the facts may be worth putting on record here. Mr. Harry Veitch, in his admirable paper on the horticultural history of *Nepenthes* in the "Journal of the Royal Horticultural Society" (1898), Vol. XXI., pages 226 to 255, ff. 43 to 58, gives some particulars of the early records of various species, which he acknowledges having borrowed from an article on the same subject by Dr. Günther Beck, in the "Wiener Illustrirte Gartenzeitung" for 1895. The latter writer evidently did not consult some of the books which he cites, and consequently made several singular errors, some of which are repeated by Mr. Veitch.

The earliest record I have found of any species relates to *N. madagascariensis*, the only one hitherto discovered in Madagascar, the western limit of the genus. It is in E. de

Flacourt's "Histoire de la grande île Madagascar" (1658).^{*} De Flacourt was Governor of the island at that date, and also Director of the Compagnie Française de l'Orient. In his account of the vegetable products he describes (page 130) this Pitcher plant, under the name of Anramitaco, as bearing at the tip of the leaf a flower or a fruit, hollow and similar to a small vase, having a lid. He continues: "Cela est très admirable à voir; il y en a de rouges et de jaunes; les jaunes sont les plus grandes." He also gives a reduced figure, about 1 inch long, of leaves and a pitcher. It is one out of about 150 figures on a single folded sheet of paper. About 140 years later *N. madagascariensis* was described by Poirét (Lamk. Encycl., Vol. IV. [1797], page 459), from specimens collected by Commerson; but it was not introduced into cultivation till 1881, when Messrs. J. Veitch and Sons exhibited it at a meeting of the Royal Horticultural Society.

Dr. Günther states that Flacourt described and figured this species from specimens discovered by Commerson, who, however, was not born till sixty-seven years after the death of Flacourt, who himself was drowned on his homeward voyage in 1660.

The next earliest records of a *Nepenthes* refer to *N. distillatoria*, the only species found in Ceylon, where it is endemic. As I have been able to consult all of those old publications in which it is described or figured, it may be worth while setting down the references, especially as they are so often incorrectly given. Even in Trimen's recent "Flora of Ceylon" (Vol. III., page 421) it is stated that this species was the first made known to botanists.

Miranda Herba, Bartholinus in "Acta Medica et Philosophica Hafniensia," Vol. III. (1677), page 38.

Planta mirabilis distillatoria, Grimm in "Miscellanea Curiosa sive Ephemeridum Med. Phys. Germ. Acad. Nat. Cur.," Decuria 2, Ann. prim., 1683, page 363, f. 27.

Bandura zingalensium, *planta mirabilis*, &c., Breyn, "Prodromus," Vol. I. (1680), page 18.

Bandura cingalensium, Ammann, "Char. Pl. Nat." (1685), pages 194 and 368.

Bandura cingalensium, *Gentianæ indicæ* species, Ray, "Hist. Pl.," Vol. I. (1686), page 721.

Nepenthes zeylanicum, flore minore, Breyn, "Prodromus," Vol. II. (1689), page 75; ed. nov., Vol. II. (1739), page 85.

Utricularia vegetabilis zeylanensium, Plukenet, "Almagestum" (1696), page 394, t. 237, f. 3.

Badura, &c., Hermann, "Mus. Zeyl." (1717), page 16.

Bandura zeylanica, &c., Burmann, "Thes. Zeyl." (1737), page 42, t. 17.

Nepenthes distillatoria, Linnæus, "Hort. Cliff." (1737), page 431; "Fl. Zeyl." (1748), page 151; "Sp. Pl.," ed. 1 (1753), page 955.

There seems to be no doubt that all the authors cited had the same plant in view, and Ray's specimen in the British Museum (Herb. Sloane, Vol. CCLX., page 81) is undoubtedly *N. distillatoria*. Most of the early writers make comparisons in their descriptions of the Pitchers which are indelicate and unjustifiable; but Breyn appropriately compares them with the flowers of an *Aristolochia*.

W. BOTTING HEMSLEY.
(To be continued.)

^{*} The edition cited by Beck and others is dated 1661.

[†] Grimm was a Swedish physician, who visited Ceylon, and his description and figure are good.

PRIZES FOR GARDENERS.

AWARDS IN THE MARCH COMPETITION.

THE first prize of four guineas for the essay on "Summer Gardening" is awarded to Mr. G. Robinson, The Gardens, Tanglewood, South Godstone, Surrey; the second prize of two guineas to Mr. A. Campbell, The Gardens, St. Anne's, Clontarf, Dublin; the third prize of one guinea to Mr. Parker Robinson, The Gardens, Pool Farm, Adderley, Market Drayton, Salop; and the fourth prize of half a guinea to Mr. J. Corbett, The Gardens, Mulgrave Castle, Whitby. A large number of readers sent in contributions for the competition on "Summer Gardening," but many of them omitted to mention the Rose and Carnation, to which the flower garden owes so much throughout the summer months. This was not due, of course, to their ignorance of the value of these flowers, but to the fact that the essays alluded only or chiefly to the effects to be obtained by planting masses or mixed beds of half-hardy plants. While these are undoubtedly very beautiful in the flower garden, they cannot be compared for general usefulness with the Rose, Carnation, and other hardy plants. The papers sent by the following essayists are thought worthy of honourable mention: A. J. Hartless, Kew, Surrey; M. Millard, Hartley Wintney, Winchfield, Hants; Frank Philip, The Gardens, Philiphaugh, Selkirk, N.B.; John Hurrell, Old Palace Gardens, Richmond, Surrey; William Hamilton, Shipley Hall Gardens, Derby; H. Evans, The Gardens, Broadstone, Forest Row, Sussex; James Maddocks, The Gardens, Adderley Rectory, Market Drayton, Salop; Finlay Peacock, The Gardens, Hollybank, Wokingham; Winifred M. Buttenshaw, The Gardens, Horsted, Keynes, Sussex; A. Herbert, The Gardens, Welbeck Abbey, Worksop; S. Archer, Orkney Cottage, Taplow, Bucks; W. H. Scott, The Hermitage Gardens, Twyford, Berks; H. Whitner, Handcross, Crawley; John H. Reid, The Gardens, Ferguslie, N.B.; Henry Arnold, The Gardens, Sauchieburn by Stirling, N.B.; A. Swaby, Harefield Gardens, Stoke, Coventry; and William Jamieson, The Gardens, Aberlour House, Banffshire.

PRIZE ESSAY ON "SUMMER GARDENING."

When June comes danger of frost is over, and the gardener empties his greenhouses and frames of bedding-out plants. Before they are turned out of their pots and boxes a good watering should be given, and again when replanted to settle the soil around the roots. Once filled the beds remain bright throughout the summer and autumn, only needing the removal of dead leaves and flowers, weeding, and watering, and when in full growth occasional applications of some good fertiliser, such as nitrate of soda or guano. This should be applied either before rain or a good watering, and be repeated after a month or so.

Herbaceous Mixed Borders.—After the blaze of spring flowers the borders in early June are often scarce of bloom, and one should look principally to early biennial and herbaceous plants to supply the need. They should consist of biennials (or hardy annuals treated as such); annual Larkspurs (3 feet), sown either in nursery garden or frame, should be planted in the border by early March; spring sowings should also be made for succession. Pink and blue Cornflowers should be autumn-sown and transplanted into beds as soon as dug—they bloom much earlier and stronger than spring-sown seed; Canterbury Bells, mauve, white, and pink, from seed sown last June in the nursery; Brompton Stocks in crimson, white, and mauve, 2½ feet; Foxgloves and Sweet Williams, crimson, white, and pink, 1 foot. Perennials, beginning with *Lupins among the tallest, 3½ feet to 4½ feet, blue, mauve, white, pink, and the sweet-scented yellow Tree Lupin; *Snapdragons, like Larkspurs, will flourish

in the driest corner; Aquilegias, 3 feet, in all their beautiful shades; Turban Ranunculus, 2½ feet, many coloured, and liking plenty of water in dry weather; brilliant Oriental Poppies, which dislike being disturbed; Pæonies and the hardy Gladiolus The Bride, left from year to year in the ground; Pyrethrums; Spanish Irises, which are best undisturbed among the Pinks and *Pansies—the last like sun, but their roots must be kept cool by a mulching of decayed leaves towards the end of June; and Madonna Lilies, which should be left undisturbed from year to year. Annuals sown in the border during spring and those planted out will be giving promise of bloom; waterings will be needed after warm days. Strong-growing herbaceous plants whose roots go deep are best left unwatered till really in need; too much water makes the growth sappy. In any bare spaces, Poppies, Eschscholtzias, Nemophila, Mignonette, and Love-in-a-mist may be sown for succession.

In July any of the plants above marked * will still be in bloom. Add to these the following early annuals: Sweet Sultans, 1½ feet, yellow, white, and mauve, the blooms like huge Cornflowers; annual Poppies, all heights and colours; Stocks; Love-in-a-mist, 1½ feet; and dwarf plants as Mignonette (when sown, if the soil is deficient in lime, some should be applied); crimson and white Candytuft, 1 foot; bright blue Nemophila, 3 inches; and *Eschscholtzias, yellow, white, and rose, 1 foot.

Tall perennials then in bloom are *Delphiniums in all shades of blue, 4 feet to 6 feet; †Eryngium giganteum or giant Sea Holly, blue, 3 feet to 4 feet (excellent dried for winter decoration); †Echinops or Globe Thistles, 3½ feet, blue; †Evening Primroses, 3 feet to 5 feet, pale yellow; †Campanula pyramidalis and C. carpatia, one 6 feet, the other 2½ feet, both mauve and white; Golden Rod or Solidago growing into huge clumps, 4 feet; English Iris, 2½ feet; †Coreopsis grandiflora, large yellow Daisy, best treated as a biennial, 1½ feet; †Gaillardia, large yellow and bronze Daisy, 1½ feet; †Pentstemons in shades of red, 3 feet; Scarlet Lychnis, 2 feet; and last, but not least, †Carnations. These by the end of the month should be increased by layers for next year.

During August all the above marked † will be gay for the whole month, and those marked * only for the first half. Annuals are at their best this month. They include Nasturtiums, tall and dwarf; Salpiglossis, with delicate Petunia-shaped flowers on slender stems 2½ feet high in lovely shades of brown, purple, and yellow, which should be grown about 8 inches apart in masses; annual Coreopsis, doing quite well in a dry spot, 3 feet, brown and yellow; annual Phloxes, 1 foot, brilliant reds, pinks, and white; and towards the end of August the first annual Asters, one of the least stiff and most beautiful being A. sinensis, big, single, and mauve. Hollyhocks should be grown as annuals where they suffer from disease. Sow seed in January in heat, and plant out in April, giving liberal treatment all through. Of perennials Phloxes, Tiger Lilies, and Gypsophila paniculata flower towards the end of the month.

When September comes some of the annuals will be over, but those still at their best are Nasturtiums, Salpiglossis, Mignonette, Asters, Coreopsis, and big African Marigolds. The perennials still in bloom are Evening Primroses, Pentstemons, Gaillardias, Hollyhocks, and Gypsophila. To these may be added, that bloom this month, perennial Sunflowers, Michaelmas Daisies, Torch Lilies, Dahlias, Cosmos, a graceful half-hardy annual, 4 feet to 5 feet high, Daisy-like flowers, red, pink, and white; Anemone japonica, 2 feet to 3 feet, white and pink; Gladiolus, and Lilium speciosum.

Sweet Peas and Roses are best grown separately where possible; the former give the best show when planted in clumps of one colour. Those who save seed should take it from the early flowers.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

PARSLEY GROWN IN TUBS FOR WINTER AND SPRING USE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The illustration shows a convenient way of having Parsley for winter use. It often happens that the outdoor supply is stopped in severe winter weather, and if no frame or other protection has been provided, the want of Parsley, so precious a thing in much fine cooking, is sadly felt in a good kitchen. A small tub with a capacity of nine gallons, or even smaller, if prepared with holes and planted with strong young plants in the autumn and placed in a greenhouse orinery when cold weather sets in, will provide a moderate quantity of useful Parsley. Moreover, when well furnished, the tub having the summer before been painted a quiet, rather light colour like that of a Sage leaf, it is by no means an unsightly object. T.

BRITISH v. AMERICAN APPLES AND THE SPENCER SEEDLESS APPLE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The discussion of the relative quality and value of British and American Apples, to which you have given publicity in THE GARDEN of late, has awakened much interest among readers in this country. Inasmuch as the general trend of opinion among your own people seems to favour the American-grown fruit, we are, of course, gratified here.

Every American fruit grower is proud of the Newtown Pippin Apple; proud that it originated upon American soil. So far as I know, no one in this country has ever questioned its supremacy over all other Apples for quality. I have always considered it the standard Apple flavour, which is not approached by any other variety, and have done my full share in lauding its merits in the horticultural press. Previous volumes of THE GARDEN (Vol. XIII., page 436, and Vol. XXI., page 182) will bear some testimony to these efforts. Perhaps my patriotic pride in this Apple has made me over-enthusiastic in the expression of its merits. But as the years go by, and sundry new sorts have come to light under all manner of claims and the most glowing promises, I have found no occasion to change my opinion of this Apple; and, with a pretty extensive acquaintance among leading pomologists

and fruit growers in this country, I have yet to find a man who will attack the record of this Newtown quality.

I am just opening a fresh barrel of these Apples, now near the beginning of April, which were grown here in the shadow of the Catskill Mountains. They are not quite as large as in past years, but sound and fine. Every Apple is filled with the sprightly Newtown juice, and I wish I had some of your readers here to whiff the aroma that arises from this barrel. But I would not limit them to this olfactory pleasure. The trouble is we cannot get enough of these Apples here, and it is no wonder that its cherished label covers so much indifferent fruit that is found in your markets. This must be the reason why so many English palates are disappointed with what is served to them for the Newtown Apple. Growers plant it sparingly in their new orchards, because of its slow growth while young and its tardy bearing. But I am satisfied that much of this can be obviated by the selection of proper soil and location, the choice of vigorous, well-grown stock, and extra care and culture. For all this the great value of the fruit and the demand for it should well repay. When once established the Newtown is a full and regular bearer; a vigorous, hardy, and long-lived tree.

Your correspondent "Kew" bemoans the quality of the fruit which is now foisted upon English consumers as the Newtown Pippin, and fears that the genuine article has perhaps been hybridised out of existence. I take pleasure, however, in assuring him that such is not the case. We are growing it just as good as ever in this Hudson River valley, though, perhaps, in less quantity. It is most always to be found in our great New York markets at the top price. Some of your correspondents seem inclined to



PARSLEY GROWN IN A TUB.

except your famous Cox's Orange and Ribston Apples in giving the palm to the Newtown, but I would have to satisfy myself that these were really superior to it by personal test, which I have often wanted to make.

Our Esopus Spitzenburgh is another most famous and valuable Apple for quality, and it stands next to the Newtown in my judgment. We cannot get enough of this Apple either; growers are afraid to plant it to any extent. They argue that the common Baldwin grows and bears better, and that the average consumer does not really know what a good Apple is, and is satisfied with most any Apple that looks fair and attractive on the outside, which is far too true. But this Esopus Spitzenburgh is a grand Apple, and I have been enjoying it all the winter—nothing finer for eating out of the hand. It is believed to have originated here along the Hudson, and I have made diligent efforts to ascertain just where, when, and how it first came into existence for some years past, but, after securing a mass of conflicting data, I am still at a loss to form any definite conclusion.

Just now we are threatened with a new Apple sensation over here by an enterprising Apple syndicate in Colorado. I refer to the Spencer Seedless Apple; but I predict a short-lived fame for this novelty. The fact is most every reputable fruit man of any note in this country regards this new seedless Apple as most inferior in quality—about like the Ben Davis. Some say it is even worse. In addition to this it is rarely without seeds, judging from the specimens shown here of late, and the usual woody carpels or core divisions, which are the more objectionable features in most Apples, are not only present in this new Apple, but they are strongly developed. Another defect is the exceptionally large and open calyx, which extends almost to the core itself.

These abnormal freaks, like seedless or coreless Apples and Pears, pitiless Plums, &c., are not very new to observant fruit men. But with the exception of the Navel Orange, which is not always seedless either, nothing of any special value has ever yet developed.

Kingston, New York.

H. HENDRICKS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—There has been an interesting controversy in your columns on the subject of English *versus* American fruit. I am sending you a few Newtown Pippins at this late season, having kept them from the middle of November last. They came from America in the usual barrel. I also send a few Allen's Everlasting from my little garden. I regret that the best specimens of both sorts had been already consumed before the happy thought occurred to me of supplementing your dessert table. Finally, there are a few Lane's Prince Albert, which might confirm what Mr. Owen Thomas recently said in your columns. He made a very bold assertion when he said that this cooking variety is good as an eating Apple in March—April. Mr. Thomas, in alluding to various late Apples, does not even include the Scarlet Nonpareil, which I think better than any other British Apple from February.

Sidcup, Kent.

H. H. RASCHEN.

[The fruit of Newtown Pippin Apple was distinctly good, but the fruits of Allen's Everlasting and Lane's Prince Albert had certainly lost their good qualities.—ED.]

TREE CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I hardly expect to satisfy Mr. Jenkins in regard to my statements respecting the earlier varieties of Tree Carnations. Mr. Jenkins still keeps to La Belle, and I fully agree with him that it was one of the earliest, but yet not the best type of our earlier sorts. Rosabelle, Andalusia, and Bride are better examples. With regard to the origin of La Belle, Mr. Jenkins

appears to be in error. I have it on good authority that this was raised at Leyton, in Essex, by Mr. Blackstock, and was soon grown by Mr. Ward, a neighbour. I believe it was the Rev. Harpur-Crewe who brought Andalusia from Spain, and the best of the other tall-growing sorts were of Continental origin. One more point I would mention. Mr. Jenkins states that the variety Mrs. T. W. Lawson does not open well in winter in England. I hardly think he would make this statement if he had seen the splendid examples that have been on the market every week throughout the past winter. They have not been coming from one grower only, but from several, and there has been nothing else to compare with it in the same shade of colour.

A. HEMSLEY.

EUGENIA UGNI.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It will interest "A Subscriber" to know that in my garden, three miles from the sea in



THE STAG'S-HORN FERN (PLATYCERIUM ALCORNORAE)
GROWN IN A ROOM.

North Cornwall, Eugenia Ugni grows in the open and fruits freely.

Junior Carlton Club.

ATHELSTAN RILEY.

BULLFINCHES IN THE GARDEN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Surrounded as we are by old and very dense Yew hedges, we are greatly frequented by all sorts of birds, and the fight with these pretty little marauders goes on unceasingly all the spring and summer. Last year the whole of our prospective Gooseberry crop was destroyed by bullfinches, the trees being reduced to bare skeletons during our absence from the garden in February. This year we netted the bushes directly the buds began to appear, and now the humming of bees in the plentiful blossom gives us comfortable assurance that we have won a bloodless victory. Your correspondent says rightly, Why kill the bullfinches if it can be avoided? These pretty birds are of market value alive, and are perfectly happy in captivity. A friend of mine tamed one from the nest, and actually taught it to speak, inasmuch that it says quite distinctly, "Dear little bird." Alas! improvident slaughter is the craze of the uneducated gardener. It has

often surprised me that the working man cannot see that there is a small fortune to be made out of moleskins. I saw the other day a tree hung with the dead bodies of fifty moles. Here I can find no one who knows how to trap that detestable little animal, and ours being the rich loamy soil the creature delights in, he wanders all over the garden spreading death and destruction. I confess, too, my humanity stops short at sparrows. To do them justice, they do eat the green fly off the Roses, but discount that little good by much evil elsewhere. My borders are strewn with the blossoms of hybrid Primroses, and last spring they nipped off the flowers of a promising young Apple tree whose fruit we were most anxious to sample. It is a pity the farmer's tax on sparrows has been done away with. Bat-fowling, too, seems a lost art. My garden boy did not know what I meant when I suggested that the pirate hordes of sparrows in the Ivy-covered roof of a potting-shed might be captured by such means. I thought he, like the garden boys of the past, would have jumped at such a chance of a night's sport. Perhaps, however, bat-fowling is among the many things that are now illegal.

Berks.

AUGUSTA DE LACY-LACY.

THE STAG'S-HORN FERN.

THE illustration shows the Stag's-Horn Fern referred to in THE GARDEN of the 15th inst. It has been reproduced from a photograph sent by Dr. Alfred Marcus of Dusseldorf.

ROUND ABOUT A GARDEN.

TOWN AND COUNTRY FLOWER-BEDS.

NOW is especially the time when many men's fancy lightly turns to thoughts of gardening, no matter how few may be the square feet of ground which they can call their own. And very surprising sometimes is the contrast of results which different men achieve. Often you may hear a dweller in some city suburb, where, in spite of the thought and money which he expends upon his garden, he always misses success, wonder how it is that cottagers manage to make their little plots so beautiful; and real gardens in the real country make him sigh with envy. In the end he usually decides that the shortcomings of his own garden are the result of foggy and smoky air from the neighbouring wilderness of bricks and mortar, and that it is useless to expect things to "thrive" with him as they do in the country.

THE FAULT OF THE CAT.

There is something in this of course; but other reasons contribute mainly, I think, to the non-success of most little gardens in towns and populous suburbs. The first place among causes of trouble I should give to the cat. This engaging animal simply swarms in every suburb; and, though you can always see the direct injury which it does to flower-beds, its real mischief lies deeper. Where cats are numerous, useful birds, especially blackbirds, are scarce. It is true that in the country you may have more blackbirds about the place than will be good for the fruit crop; but in the neighbourhood of towns it is for want of blackbirds that slugs abound, often to such an extent that, unless you are perpetually providing soot, or other defences, the majority of the plants and seedlings are eaten down each night level with the ground. The result is that everything makes a bad start, if it starts at all, and never reaches the healthy, vigorous state which makes the

contents of country flower-beds look as if they belonged by nature to the ground in which they grow.

THE BLACKBIRD'S DIFFICULTY.

And if we may attribute the multiplicity of slugs in suburban gardens to the scarcity of blackbirds, we may surely lay this at the door of the cat. For the blackbird is a home-loving bird, only wandering afield in autumn and winter, and feeding always in spring and summer, when the slugs are active, in the vicinity of his home. But it is not possible for a blackbird to make his home in a garden which is infested with cats. His chattering alarm note, which may serve a useful end in the country, has the effect, in a suburb, of attracting the attention of all the cats in all the adjoining gardens; and, apart from the initial difficulty of finding a suitable site for so large a nest in small suburban gardens, where people are constantly passing near, the blackbird has small chance of rearing a brood. Either he or his mate will almost certainly fall a victim to some cat before the eggs are hatched.

SLUGS AND SNAILS.

If people realised how much the absence of slug-eating birds from a garden means, all who wish for a healthy, vigorous garden, in spite of the vicinity of bricks and mortar, would give their first and best thoughts, not to what they are going to "put into it" in the way of new plants, but what they can drive out of it from the battalions of slugs which lie hidden by day but march forth in parade order to devastate the ground every night. The relation of thrushes to snails is much the same as that of blackbirds to the slugs. Indeed, country gardeners regard the thrush with the greater favour, because it sticks to a snail diet as much as possible even in fruit time; but in a small town garden the snails, though numerous enough—for the same reason that the slugs abound, *i.e.*, the cat—are comparatively easily discovered and dealt with. And although the too common method of disposing of snails leads to little more than a brisk interchange of molluscs between neighbours "over the wall," one feels less the palpable injury done by an enemy that you can see and hit with the back of a spade, than that of the invisible despoiler who often leaves you wondering when your seedlings are going to come up, while he is quietly eating them down every night under cover of darkness.

AN INJURIOUS ADVANTAGE.

An almost more potent reason for the comparative failure of those small, suburban gardens, in which the owner takes an active personal interest, is one which at first sight might appear to be an advantage, namely, the facilities which he enjoys for purchasing

plants for the garden at his own gate. In the country you increase your stock chiefly through the generosity of neighbours—to whom, of course, you are generous in return—who give you roots, cuttings, or seeds from their gardens. Thus the circle of choice is limited, and in most cases the varieties are old-fashioned. To the town dweller, on the other hand, there comes every day in spring, but especially on Saturday, a procession of barrows laden with boxes of seedlings and plants in pots, all apparently in the pink of condition and carefully selected, as being just the sort of plants which are likely to tempt his fancy. Too often these have merely been "forced" for sale at this particular stage of their growth, and, when planted out, they suffer a shock of changed conditions from which they never completely recover.

THE SWINDLER AT THE GATE.

Worse still, of course, are the deliberate swindles which itinerant vendors perpetrate upon the inexpert suburbanite. On one occasion last year I chanced to be visiting a house in a London suburb when a man arrived with Fuchsias in bloom for sale, everyone of which, he volubly asserted, had come straight from the Crystal Palace, where they had just taken the first prize! Apart from this transparent lie, the plants were almost worth the small sum asked for them, so that little harm would have been done. On a second occasion, however, at the same house, I was consulted as to the purchase of some scores of "rooted Chrysanthemum cuttings," which a man was offering at the gate; and these proved to be only rooted pieces of Mugwort collected under some hedge. They somewhat closely resemble cuttings of the Chrysanthemum, and I have little doubt that this man always succeeds in selling thousands of the worthless weeds during his "Chrysanthemum" season. On a third occasion at the same house I was shown a dozen large and healthy Rose trees, carefully twisted with bast and labelled "Gloire de Dijon," "Crimson

Rambler," "Yellow Rambler," "W. A. Richardson," and so on. The man who sold them had told a long story of woe to account for the low price which he was willing to accept; and, of course, they were only the commonest of half-wild Roses, probably dug up from some abandoned garden and fit only for the rubbish-heap.

A REMEDY REQUIRED.

There are so many honest men who might make a living by hawking plants, that they, as well as the public, should be better protected than they are now from this swindling competition. When, as in two at least of these cases, the things offered for sale afforded in themselves conclusive evidence of fraud, the police should be able to take action on the complaint of a householder; whereas, now it is of no use to inform the police unless you are prepared to attend at the court as a complainant. This, very few have the public spirit to do; nor should it be required. Perhaps the best solution would be to compel all hawkers to take out licenses for the sale only of goods which are fairly and truly labelled or described to the customer, and leaving power to the police to take action if the conditions should manifestly be disregarded.

E. K. R.

THE FLOWER GARDEN.

IN THE TIME OF DAFFODILS.

THE SEASON.

FOR some weeks those who take a delight in these enchanting flowers will have their attention fully absorbed in studying their many charms. The season is an early one—this is admitted upon all sides—and as far as one is enabled to judge at this date (April 4), everything points to a favourable season. As usual, the first flower to open in my garden was *N. pallidus præcox*, and extremely well it does on the light soil here.

It is always of interest to note the dates on which some of the early varieties open, and to make comparisons with former years, so I append them: *N. pallidus præcox*, February 20, 1903; February 16, 1904; February 19, 1905. *N. obvallaris* (Tenby), February 23, 1903; March 24, 1904; March 12, 1905. *N. King Alfred*, April 12, 1904; March 23, 1905.

Narcissus Blackwell.—This is an extremely pretty incomparabilis variety, and valuable on account of its earliness. With me Sir Watkin opened on March 27, while Blackwell opened just three days later. The flowers are of excellent form and of lasting character. A note in Messrs. Barr's 1903 catalogue in reference to this characteristic says "this variety commenced flowering out of doors this season at our Ditton Hill Nurseries on March 12, and was still in beauty on April 12. In colour the perianth segments are a little lighter in shade than



TRUMPET DAFFODIL WHITE KNIGHT. (Given an award of merit at the Midland Daffodil Show, 1904).

those of Barri conspicuous, while the straight cup is deeply fluted and stained with orange red. It is now extremely reasonable in price, and should be acquired by those who value early flowers.

N. Acme.—To my mind this was one of the finest seedlings exhibited in 1904. Mr. Engleheart has busied himself with the poeticus varieties for very many years, and only those who have watched their development know how admirably they have responded to his care and skill. *Acme*, an illustration of which is given, may be taken as the highest type of beauty which it is possible to obtain in a Poet's Narcissus. True it is that larger flowers have already been obtained and that it is quite possible for it to be surpassed even this year by a yet more striking flower, for there is no end to the new charms which await us at the hand of the hybridist. Nevertheless, many years must elapse before such an exquisite flower as this will fail to elicit admiration. Compared with such varieties as *Epic*, *Laureate*, &c., *Acme* is a relatively small flower, but what it lacks in size is amply compensated by its extreme refinement. Its chief distinction is in its vivid scarlet crown three-quarters of an inch in width. The pure white perianth segments are of ornatus character, and the whole flower is just 3 inches across. *Acme* was exhibited at the Midland Daffodil show last season, and received an unanimous award of merit.

White Trumpet Daffodils.—These bid fair to become so numerous as to be almost indistinguishable even when seen side by side. Nearly all these new varieties were raised from *Mme. de Graaff*, and those from Holland are probably the produce of self-fertilised flowers of this variety. Two lovely seedlings were shown by Messrs. de Graaff of Leiden at the Midland Daffodil Society's exhibition last year, i.e., *Snow Elf* and *White Knight*, the latter of which is here illustrated. I have not seen either of them growing, so that it is impossible to compare them with existing varieties. *Mme. de Graaff* is a fairly free seeder, and in the next few years we are likely to see a very numerous progeny from this source. Last season, using *King Alfred* as the pollen parent, I got the following result from seven flowers of *Mme. de Graaff*: First pod, 27 seeds; second pod, 28 seeds; third pod, 24 seeds; fourth pod, 23 seeds; fifth pod, 7 seeds; sixth pod, 3 seeds; seventh pod, 3 seeds. The seed was harvested on June 19, and the majority of it has germinated. It would be very interesting if others would send their experiences of seeding Daffodils to THE GARDEN.

Kidderminster. ARTHUR R. GOODWIN.

[We hope Mr. Goodwin's suggestion will be heeded by our readers. At the present time the Narcissus is creating more interest than perhaps at any period of its history, and if those of our readers who have grown the plant would favour with accounts of their experience, the notes would prove of some importance.—ED.]

COLOURED PLATE.

PLATE 1273.

THE OLD MUSK ROSE.

(*ROSA MOSCHATA NIVEA*.)

THE old Musk Rose is supposed to have been introduced nearly 300 years ago, and the kind to which I allude is possibly of garden origin. It has a vigorous climbing habit, is very hardy, and certainly not fastidious,

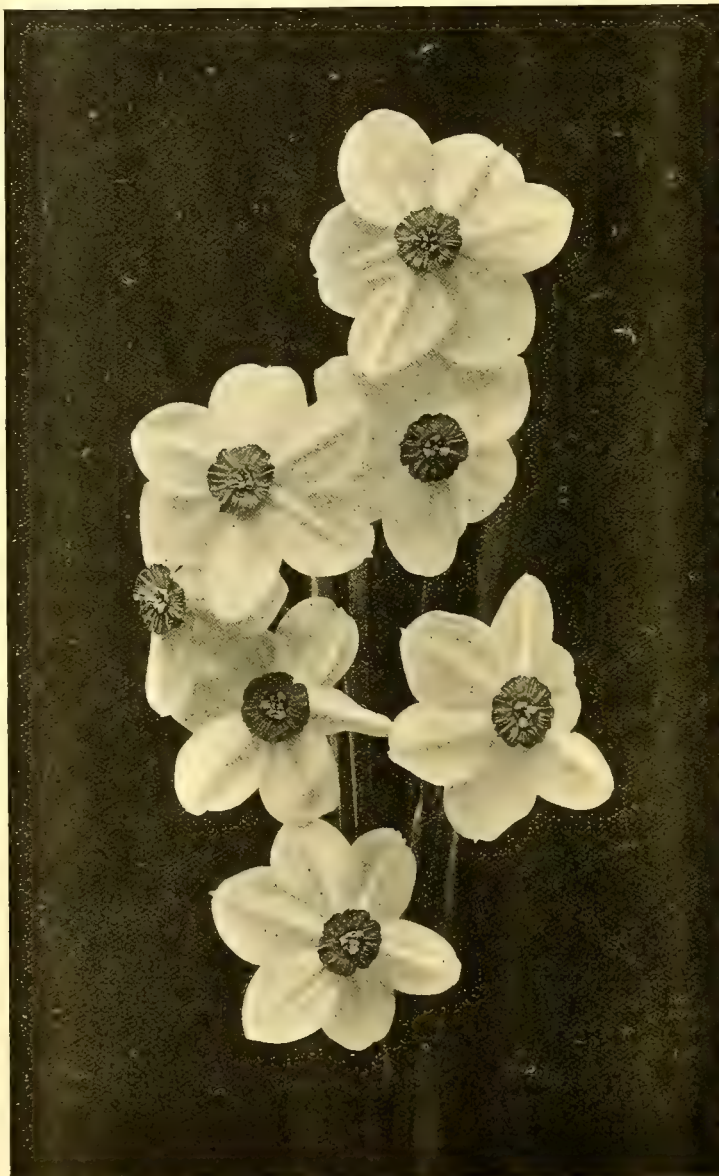
see from nine to twelve fully open at one time. The flowers individually are very large, opening wide and flat. They are chiefly white, but have exquisite suffusions of pink towards the edges of the petals and a cushion of rich yellow anthers in the centre, which keep their colour while the flower lasts. The leaves have seven leaflets, are of a grey-green colour, and when young distinctly scented. The wood is chiefly smooth, but small spines are numerous towards the tips of the shoots. For cutting it is delightful, as the clusters have long stems, and in the house every bud opens in due course. The buds are of a lovely pink colour before they open. B.

NOTES ON HARDY PLANTS.

THE CHIONODOXAS.

OF these I consider *C. sardensis* the best for general effect, its blue being more telling in the mass than the blue and white of *C. Luciliae*. For planting by the thousand on grassy banks, *C. sardensis* is particularly valuable, being as decorative in such a position as the Grape Hyacinths, and considerably earlier. *C. gigantea* and *C. Alleni* appear to me to be identical, and with both I am much disappointed, as although I have now had them four years, not a single spike has produced more than three flowers, and the majority only two. In Mr. Archer-Hind's garden, where they have been almost since their first introduction, the result has been the same. *C. gigantea* was at first held to be merely a species of *C. Luciliae*, but the former is so much weaker in growth and poorer in flower-bearing that I cannot but think it is a distinct species. With me *C. Luciliae* often grows nearly a foot in height, and bears twelve flowers, while *C. sardensis*, 2 inches shorter, has sometimes exceeded the dozen blooms. Four years ago I planted one hundred *C. gigantea* among a colony of *Tulipa Greigi*. The first season they were very disappointing, most of them bearing only one flower. Next year they were but little better, but thinking that they might improve when established I gave them another year's trial. However, last spring but little improvement was manifest, only four of the plants bearing three flowers, and the remainder two and one. In the summer I took them up and planted them in another part of the garden, replanting the *Tulipa Greigi* bed with *C. sardensis*. The present effect is satisfactory, the scarlet Tulips glowing out of the blue of the Chionodoxas, many of which have six flowers, a number that will be greatly increased another year. In a former garden *C. sardensis* seeded itself abundantly, self-sown seedlings springing up in number in the border and in the adjoining gravel path.

S. W. FITZHERBERT.



NARCISSUS ACME.

(This variety obtained an award of merit at the Midland Daffodil Society's Show, 1904.)

for the plants from which I have formed my opinion of its worth are growing in bad clay soil. They effectually conceal an iron fence, and are subject to some restriction, being beside a path. They send up strong shoots like Willow wands, and when in bloom this fence is quite a feature. In profusion of bloom it is marvellous, the flowers coming in great flat clusters of thirty or more, and it is not uncommon to

planted them in another part of the garden, replanting the *Tulipa Greigi* bed with *C. sardensis*. The present effect is satisfactory, the scarlet Tulips glowing out of the blue of the Chionodoxas, many of which have six flowers, a number that will be greatly increased another year. In a former garden *C. sardensis* seeded itself abundantly, self-sown seedlings springing up in number in the border and in the adjoining gravel path.



ROSA MOSCHATA NIVEA

THE PEACH-LEAVED BELLFLOWER.

(CAMPANULA PERSICIFOLIA.)

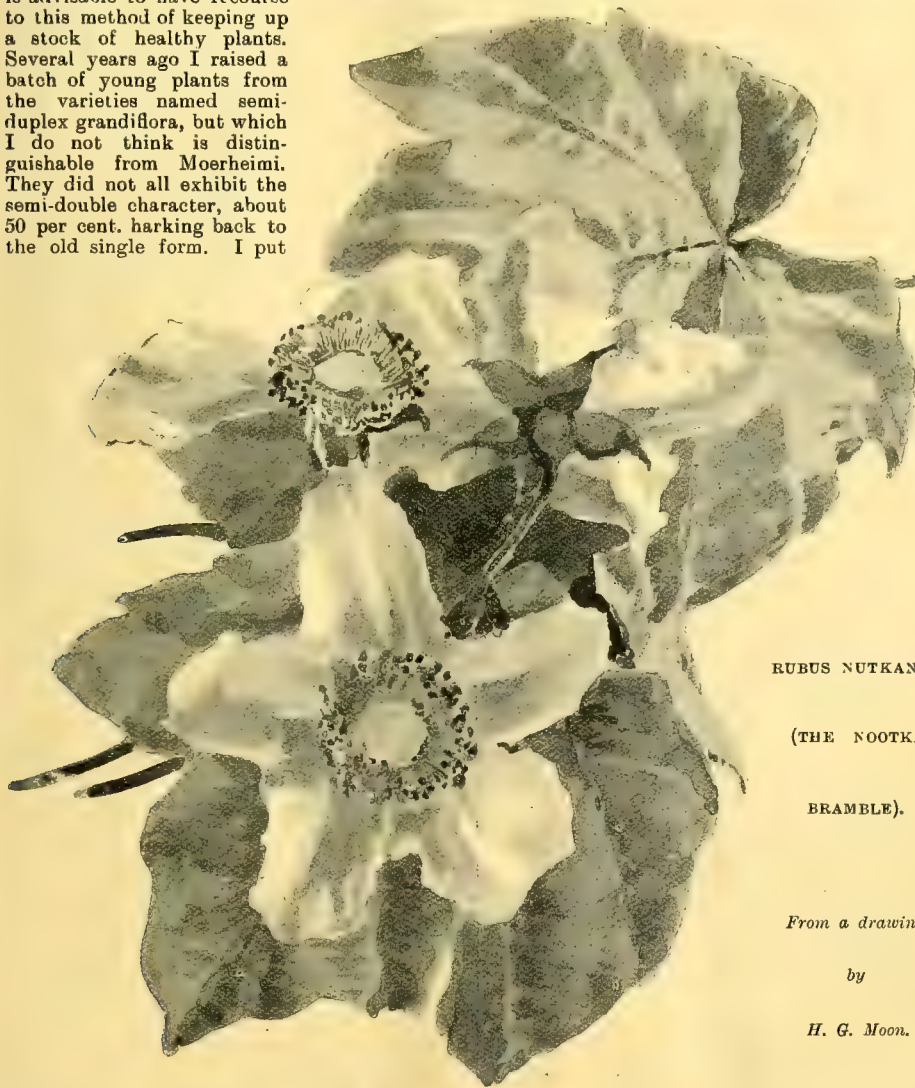
THE various forms of the Peach-leaved Bellflower would be more popular did they possess the vigour of such kinds as *C. macrantha* and *C. grandis*. Here and there where the soil is very good they retain their strength for some years, and seem to require no more care than the ordinary border kind, but in light soils which parch in hot weather they have a way of disappearing suddenly. It is most annoying to find a once flourishing colony in such a debilitated condition that the plants are only fit for the rubbish heap. As, in a general way, raising seedlings is an easy enough matter in the case of this *Campanula*, it is advisable to have recourse to this method of keeping up a stock of healthy plants. Several years ago I raised a batch of young plants from the varieties named *semi-duplex grandiflora*, but which I do not think is distinguishable from *Moerheimi*. They did not all exhibit the semi-double character, about 50 per cent. harking back to the old single form. I put

manure or top-dressing of some kind. In some places where the drainage is not free the roots are apt to perish in a wet, very cold time. It is a good plan to take up a plant or two after blooming, pull them to pieces, and dibble them into pots or boxes of free soil, keeping them there until the following spring. J. CORNHILL.

IRIS BUCCHARICA.

THIS fine bulbous *Iris* is probably not yet so well known or so much in cultivation as it deserves to be. Three flowers were fully expanded on the 20th ult., and there were two more buds to follow. The pale yellow and white flowers are of considerable size and deliciously sweet,

division of the roots, time is required by the raiser to obtain sufficient plants to put a novelty into commerce. As the National Auricula Society retain in their schedule of prizes classes for gold-laced Polyanthus, it can be stated that the following new varieties are procurable: Black grounds—Cheshire Favourite, a variety difficult to beat when at its best; Mrs. Brownhill (Lancashire Hero), a very useful variety; Tiny, a refined flower when at its best; Mrs. Thornley, a comparatively new and pleasing variety; and Mrs. Holland, which has been distributed under the name of Mrs. Holden. Red grounds are unfortunately scarce. They are Sir Sydney Smith and Middleton Favourite, both very useful for exhibition purposes, but neither first rate. George IV. is very scarce indeed, and if a plant is obtainable it is only at a high price, while Lancer, only a few years ago so plentiful about Wolverhampton, seems to have disappeared. With the exception of the Middleton growers, and Mr. J. W. Bentley, Stakehill, Manchester, Messrs.



RUBUS NUTKANUS

(THE NOOTKA

BRAMBLE).

From a drawing

by

H. G. Moon.

them into good ground early in spring; they made good growth and bloomed splendidly the following year. Signs of deterioration are, however, very apparent; the crowns are small, and I see that the flower-stems will be scanty and wanting in strength. If I let them go another season they will, in all probability, die out this next summer. I must take them up and replant in sweet, well-enriched ground. Take care that they do not suffer from drought, and they will probably come round again. The amount and size of bloom that this *Campanula* produces appears to be out of proportion to the strength of the foliage, so that a fine-blooming period is often followed by exhaustion. Much may be done by cutting down the stems as soon as the flowers fade, and giving the plants a little help in the form of liquid

reminding one somewhat of a *Freesia* both in colour and scent. Coming as it does from Bokhara, this *Iris* should be perfectly hardy in this country in soil and under conditions favourable to the growth of the bulbous section. These conditions I take to be (1) perfect drainage, (2) a warm sunny bed or sheltered corner, and (3) some simple means of keeping off heavy rain during the ripening of the bulbs. S. G. REID.

NAMED GOLD-LACED POLYANTHUS.

THE interest in the gold-laced Polyanthus is always strong at this season of the year, when the plants approach their blooming time. Several new varieties have been raised during the last few years, but as stock is obtained only by

J. Pope and Son, King's Norton, with a few others, there are but a small list of known growers; but there is urgent need for some to devote themselves to the cross-fertilisation of the named varieties which are procurable with a view of obtaining new standard sorts. There is hope only in cross-fertilisation; a thousand seedlings may be raised from chance seed and scarcely one result with claims to good quality. Hence, then, anyone turning his hands to improvements must do all he can to ensure seed likely to give good results. It is only those who know the named varieties at present in cultivation who can imagine an ideal gold-laced Polyanthus. R. DEAN.

TREES AND SHRUBS.

THE NOOTKA BRAMBLE.

THE *Rubus* family is a most charming one, and *R. Nutkanus* and *R. spectabilis* are happy among the natural vegetation of steep and stony banks. Those who wish to create pretty effects should make a note of them for planting in rough places, especially by woodland walks or in corners more or less shaded by large trees. *R. spectabilis* has flowers produced singly; they are large and of a purple-red colour. It grows vigorously, and has stout thorny shoots and large leaves, which are much like those of our native Bramble. The Nootka Bramble (see illustration) is of a different habit, being dwarfier, more bushy, but spreading freely into a handsome mass of leaf and flower. The leaves on plants in partial shade are often very large. The flowers, which come in clusters, are pure white, and often 2 inches across. H.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

UNTIDY CORNERS.—There are what may be termed waste corners in many gardens. They may not be in prominent positions, they may be too much shaded, or too much roasted with sunshine, and the things planted, from not being suitable, have failed. There are plants, if the site is well prepared, that will suit every position. We may look round and see how Nature clothes difficult spots. Plant the right things, and a new and special feature may be created.

In Shady Spots we may plant shade-loving shrubs: St. John's Wort (*Hypericum calycinum*), *Berberis Aquifolium* and *stenophylla*, *Aucubas*, bush Ivies, hardy Ferns, Primroses, Snowdrops, Narcissi, Bluebells or wild Hyacinths, wood Anemones, Solomon's Seal, Hellebores, &c. Bits of rockery may be created, if not under the drip of trees, for hardy Cyclamens and Primroses, and pockets prepared by adding peat, leaf-mould, and sand, intermixed with bits of limestone to suit some things.

Hot Sunny Positions can be made suitable for most things by digging deep and working in manure and good soil. The finest plants of Tea Roses we have seen for some time were growing on what was formerly always a dry barren spot. The transformation was effected chiefly by cow manure and some good loam worked into the depth of 3 feet. The sunshine is a blessing to the gardener; we never get enough of it. But we must prepare the site to suit the conditions.

Annual Climbing Plants.—Where there are rough, untidy objects to hide a good deal may be quickly done by sowing seeds of *Tropaeolum majus*. The Canary Creeper is useful too. *Cobæa scandens* will grow 20 feet in one season, and in sheltered spots by the seaside in the south of England the plant lives through the winter. The seeds are usually sown in heat to get an early start, and are planted out in May. Other useful climbing plants are *Lophospermum scandens*, *Convolvulus major*, *Maurandya barclayana*, and *Eccremocarpus scabra*.

Fragrance in the Garden.—The old-fashioned Brompton Stock that used to be so common in the cottage garden, the Cabbage Rose, old white Pinks in masses, Musk in damp, shady spots, Violets and Primroses give us the first fragrance of spring and form one of the early joys of the garden. Very sweet, too, is the fragrance of the Night-scented Stock *Mathiola bicornis*, seeds of which may be sown now. *Heliotrope* or *Cherry-pie*, *Lavender*, *Lad's Love* or *Southernwood*, and, above all, let us sow plenty of Sweet Peas and *Mignonette*. There are other things, such as *Nicotiana affinis* and others, which may be added.

Cineraria stellata.—Sow a few seeds now and again in June. This is a very fine conservatory plant. Splendid specimens may be grown in 6-inch and 7-inch pots. There is no trouble to sow seeds, but the seed parents should be placed by themselves. The bees have been busy among our plants lately. To obtain a crop of *Primula* seeds the flowers must be fertilised. The higher bred a plant is the more difficult to seed.

The Herbaceous Border.—This is the spot to find suitable flowers for filling the vases, but our present demands are not, so far as regards variety, extensive. Flowers are not crowded

into vases now as they were years ago. Two or three kinds of flowers with graceful foliage are better than a crowd, but we want a change sometimes. To name a few good things for cutting, *Stenactis speciosa superba*, *Chrysanthemum maxima Johnsonii*, very large continuous flowering variety of the Ox-eye Daisy, *Doronicum* (Leopard's bane), *Coreopsis grandiflora*, *Scabiosa caucasica*, *Madonna Lilies*, *Pæonies* (especially the single whites), Pinks, and, of course, Carnations and Roses.

Propagating Winter-flowering Salvias.—*Salvia splendens* is the favourite winter-flowering variety, and cuttings of the young shoots should be rooted now in a warm, close place, potted off when rooted, stopped occasionally till a bushy habit has been obtained, and placed outside with the *Chrysanthemums* in summer or planted in a sunny position, and pot up again in September; either way will produce good plants.

Repotting Azaleas.—If more pot room is required, now is the time to give it. Use clean pots, well drained in proportion to the size, and the best obtainable peat, containing plenty of fibre, broken up by hand, and freely intermixed with clean sharp sand. The ball of the plant must be in a moist, healthy condition. Never repot any plant when very dry. If the roots are healthy do not disturb them over-much. Keep the collar of the plant well up, and ram the soil in firmly.

Planting Strawberries in April.—If we miss planting in the usual season in August, then, of course, we may plant in spring, in which case the land should be in good order for planting now. Make the land firm, and plant in rows with a trowel 2 feet apart and 18 inches apart in the rows. Between each two rows of Strawberries plant one row of *Ailsa Craig* or some other Onions, which have been raised under glass.

Perpetual Strawberries.—We are not sure that we want perpetual Strawberries. Before the introduction of St. Antoine de Padoue and others we had a pretty long season where the alpine were grown. Possibly the alpine will have to go. We have grown them for many years, and rather liked the flavour when well grown. Of course, they were small, but the big things are not the best always. Things in their regular season are always appreciated, but one may soon get tired of Strawberries.

Lettuces in Succession.—The Evesham gardeners, if they take the matter of the early Lettuce supply in hand, will rival the French. There is always room for the earliest and best, and to get them requires glass and patient steady work. Loam pits or frames answer very well, and the old-fashioned hot-bed system cannot be beaten for early work. We have had good Lettuces after forced Asparagus. As soon as the first Asparagus is cleared out, the frame is immediately filled with Paris market Lettuces or Giant White Cos, the plants of which had been waiting for the transfer. A quickly-grown Lettuce cannot be bad flavoured or lacking in crispness.

Lettuces Outside when well grown are good, but will not compare with the produce from under glass. To have a succession outside we must sow little and often from now on to July, and then sow Brown Cos and other hardy kinds. Con-

tinuity, Cabbage, and Balloon Cos are good Lettuces for summer; but crispness and quality is a question of culture. Work the land deeply and be liberal with the manure, and in hot, dry weather mulch, and there will be good Lettuces.

Tomatoes Outside.—We have tried them on an extensive scale, but the seasons are too fluctuating and foreign competition too keen to make fortunes in Tomato culture. If there is a bit of warm south wall or fence vacant, strong plants set out at the end of May or early in June, and trained to a single stem, will give a good return. Tomatoes like a firm root-run, but not the firmness of unmoved, unworked soil. No crop pays better for a well-worked site. Manure can be given in the shape of mulch, and liquid stimulants may be given when the crop is heavy.

As Regards Varieties, Ham Green Favourite is a handsome, good-flavoured sort. Early Ruby, Comet, Up-to-Date, and many others are good, but for weight of crop there is nothing superior to *Laurenson's No. 3*, but we should not call it a fine type of fruit, though the flavour is good. It is the appearance which adds to the value of a thing nowadays. When we had only one kind the old red was mostly grown, and, though the weight of crop and the flavour was right, it has disappeared from most gardens, and one never sees it in the shops now.

Feeding Vines in Pots.—A very great deal can be done by judicious feeding to give weight and finish to Grapes and other fruits. A very good way of feeding pot Vines which I saw the other day has been tried for several years, and has given good results. It was simply to enclose the sides of the pots in small-meshed wire-netting some 6 inches outside the pots, and fill in the space created with rich old turf and manure further fortified with artificials.

The Time to Feed is after the berries are set and thinned. I like to place the food among the soil rather than saturate the soil with liquid stimulants, which clog up the pores of the soil and make it sour, and the mischief is done. Too much strong stimulant and liquid from May very often does spoil the fruit. We may get size by heavy feeding, but not colour and finish. Therefore I prefer to mix the food with the soil, and the Vines find it.

Spinach Substitutes.—If the round-leaved Spinach, or any form of it, could be relied upon, we should not be seeking for substitutes. But when the hot weather comes Spinach rushes into flower and is useless; hence the value of a good substitute, and the two best are Spinach Beet, which may be sown now in drills 15 inches apart and thinned to 6 inches in the rows, and the New Zealand Spinach, which is usually sown in small pots in heat and planted out the first week in June 3 feet apart.

Spiræa Thunbergii.—This Japanese *Spiræa* is one of the best of early spring-flowering trees. Early in April its pure white flowers are produced in profusion. The narrow deep green leaves add considerably to the appearance of the plant, the contrast between flower and foliage is so good. This *Spiræa* requires little attention in pruning, growing fairly strong and flowering from any kind of growth, weak or vigorous. A peaty or sandy soil favours its growth more than a cold retentive one. This *Spiræa* is very pretty in free groups.

GARDENING OF THE WEEK.

FLOWER GARDEN.

CARPET BEDDING.—Where this style of bedding is still in vogue and the beds are vacant commence preparing by heavily manuring, digging, and levelling, the latter being an important item in this class of work. The hardier subjects utilised for groundwork, edgings, and tracings should be divided and planted in small tufts, both to facilitate the work later as well as to get the plants well established early. Specially appropriate for this purpose are *Herniaria glabra*, *Saxifraga hypnoides* and others, *Sedum glaucum* and *Lydlum*, *Antennaria tomentosum*, *Arenaria cespitosa*, *Spergula pilifera aurea*, *Ajuga reptans purpurea*, *Arabis alpina aurea*, *Santolina incana*, and *Pyrethrum aureum*, following up later with *Echeveria secunda glauca*, *Kleinia repens*, *Pachyphyton bracteatum*, and similar plants, leaving spaces for such tender subjects as *Mesembryanthemum cordifolium variegatum*, *Mentha Pulegium gibraltaria*, *Iresine Brilliantissima*, and *Alternantheras* of sorts to be put out in June. Draw a rough plan of designs for use and reference, from which a fair idea may be obtained of the number of the various plants required in each section, and propagate forthwith accordingly. Most of the hardy plants (excepting *Pyrethrum aureum*, which is best raised annually from seed) are increased by division, and the tender ones by cuttings in moist heat, with the exception of *Kleinia* and *Pachyphyton*, which are best struck cool and dry, and *Echeverias* by offsets. For propagating *Alternantheras* make up a shallow hot-bed of leaves and manure or moss litter at once, or, for preference if available, fill up a sunk pit with them. Over these spread a layer 3 inches thick of light friable leafy soil, not too fine, and insert in it soft, sappy cuttings, keeping close and shaded for a few days. They quickly root, and make sturdy little stuff by planting out time, and the bed will have cooled down sufficiently by then to admit of their being lifted and planted in their allotted spaces direct without receiving a check. I find these late-struck plants, put out in the first flush of active growth, more satisfactory throughout the season than those rooted earlier and pampered in pots for months, for the latter invariably become woody and stunted early in the summer. Preparing the many plants for

THE SUMMER FLOWER GARDEN will occupy much time and demand constant attention at present. Seedlings in more or less heat must be pricked out, and those in more forward stages be potted or boxed, cuttings inserted, and rooted plants potted and grown on, and gradually hardened off preparatory to their ultimate planting out. All these details must be promptly attended to, or serious losses will ensue, for dwindling crowded growth spells damping off.

PENTSTEMONS AND CALCEOLARIAS can now be planted where intended to bloom, for to the latter especially frequent disturbance is very injurious, and sometimes even fatal, so that it is really advisable to plant out direct from the cutting bed, if sufficient space were allowed at their insertion as cuttings to admit for sturdy branching growth made up to now. They require well-enriched holding soil to succeed. If through unfavourable weather, lack of ground, or other causes some annuals are yet to be sown, let it be done forthwith. They will form a pleasing and useful succession to those sown earlier. Attend to timely staking of bulbs and all flowering plants needing such aid, but display as little of the stake as possible.

The Gardens, Tan-y-bwlch, North Wales. J. ROBERTS.

INDOOR GARDEN.

WINTER-FLOWERING BEGONIAS.—From old plants started a few weeks back cuttings may now be taken. Plenty of cuttings can be obtained from *B. Gloire de Seaux*. On the other hand, *Winter Cheer*, *Ideals*, *Success*, and others of Messrs. Veitch's hybrids should not be cut down too hard, as they are not so free in producing cuttings. Insert in a compost of equal parts loam, leaf-mould, peat, and plenty of sand. They soon root if placed singly in small pots in a propagating frame with bottom-heat.

BASKET PLANTS.—Many houses can be made additionally attractive by suspending a few baskets from the roof. For light positions in a cool house Ivy-leaved *Pelargoniums* are very suitable. Large baskets of the pendulous-growing *Fuchsias* are strikingly beautiful when well grown. In smaller baskets *Campanula isophylla* and the varieties *alba* and *Mayi* are often met with in good condition, especially in dwelling-house windows. In the intermediate house and stove *Achimenes* are one of the most useful basket plants. *Torenia*s, especially *T. flava* (Bailoni), are often prettier grown in baskets than in pots. Amongst *Begonias* and *Asparagus* suitable sorts can be found to suit the temperature of almost all houses.

RICHARDIAS (CALLAS).—Gradually lessen the supply of water from *R. africana* (aethiopica) preparatory to standing or planting outside in June. The varieties *Little Gem*, *chilidsiana*, and *The Godfrey*, if liberally fed with liquid manure, keep on flowering well into the summer in a cool house. *R. elictiana* requires warmer treatment. Many of the pots are by this time filled with roots, and will benefit by a little feeding. Green fly is very prevalent at this season, necessitating frequent fumigation.

LEAF COLOURING.—In all collections of plants there are many which develop a much better colour if placed in the sunniest parts of the house. Others grow and thrive much better if situated in less exposed positions. The beautiful colour of *Croton* leaves is only seen when the plants are

grown in full sunlight. Hard-wooded plants also grow and flower much better.

GENERAL REMARKS.—Insert cuttings of half-ripened shoots of *Ixoras* in a propagating frame with bottom-heat. Repot *Coleus* before they become pot-bound, or the free growth especially desirable in specimens will be checked. Use a lumpy compost and avoid firm potting. Keep in a house with a warm, moist atmosphere where plenty of light is obtained to give colour to the foliage. Overhaul greenhouse *Rhododendrons* as they pass out of flower. The larger specimens do not require frequent potting. A top-dressing will be sufficient. *Solanum Capsicastrum* is breaking freely after being cut back. Shake out and repot, placing in a cold frame till suitable for planting outside. Do not attempt to dry off *Nerines* till the leaves begin to turn yellow. Have them fully exposed to the sun. The annuals for the greenhouse require constant attention. Staking and tying must not be neglected. Give more room to the plants as they grow. If there is space a slight top-dressing of new soil can be given in which a little artificial manure, such as Clay's Fertilizer, has been mixed.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

LATE VINES.—Attend to the disbudding of these before the shoots become too large, but do not reduce the number of shoots so much as to cause the trellis to be sparsely covered with foliage. Late Grapes require a good covering of foliage in order to keep them in good condition over a long season. Moreover, the result of an attack of red spider on sparsely covered Vines is more likely to be disastrous than if they were sufficiently sheltered with healthy foliage. At the same time, overcrowding must be guarded against. Remove Strawberries which are ripening from late vineries and thoroughly wash the shelves with soft soapy water as a precaution against red spider, which is sure to be present on the Strawberries. Give the borders a good watering with diluted liquid manure before the Vines come into flower.

MELONS.—When the earliest fruits commence to ripen the atmosphere must be kept cooler and dryer, and a constant circulation of air maintained. Do not withhold water too soon or the flavour will be inferior, but stimulants must not be given at this stage. The condition of the fruit will be much improved if placed in a cool room for two or three days before being sent to table. A batch of plants should be ready to replace the old ones as soon as the fruits are cut. Thoroughly cleanse the house before replanting, and if woodlice and other vermin are present in quantity it will be advisable to remove all the old soil and part of the fermenting material. Then saturate everything with boiling water. I believe woodlice are responsible for a good deal of the canker in Melons. A batch of plants may now be raised for planting in a cool pit. Hero of Lockinge is a variety of good constitution (if it can be obtained true), and very suitable for frame culture. Make a hot-bed of stable litter and leaves, and see that it is made quite firm. A good rooting medium will be loam, in which has been added a good sprinkling of old mortar rubble. This, too, must be rammed firm. If the soil is poor add bone-meal at the rate of an 8-inch potful to a barrowful of soil. Except when the plants are in flower the pit must be closed early in the afternoon after a good syringing. Cover them with mats during the night, and occasionally add fresh material round the outside of the pit to maintain a steady heat of about 70°. Open the lights early on fine mornings to let rank gases escape before the sun has time to injure the plants. When there are sufficient flowers open on each plant to obtain a crop, the atmosphere must be kept dry, and the flowers pollinated at midday.

APRICOTS.—Disbudding of these must be regularly attended to. The even balancing of the trees is to a great extent governed by this work. The upper part of the tree should be done first, this being, as a rule, the most vigorous. Take care not to damage the bark in removing the shoots if they have become too large. They must be cut clean out with a knife. The growths which are to remain to furnish the spurs must be pinched back to two or three buds. A young shoot should be encouraged where there is room to lay it in, but avoid crowding, for both wood and fruit require plenty of light and air to develop them perfectly. Thinning the fruit may to some extent be guided by the vigour of the trees. A heavy crop may with advantage be left on trees of excessive vigour.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

ORCHIDS.

THE CATTLEYA HOUSE.—*Cattleya gigas* has started well into growth, and the plants should be placed at the warmest end of the house and near to the roof glass. *C. gigas* is rather a difficult species to bloom successfully; therefore the more light the plants can get, without strong, direct sunshine, the better chance there will be of flowering them. The plants do not require much water at present, but as the growths lengthen the amount may be gradually increased, and may be more freely applied when the flower-sheaths are seen pushing up with the young leaves, but the quantity should be gradually lessened after the blooms fade. While growing avoid keeping the soil in a saturated condition; an occasional drying will keep it from getting sour and prevent the old roots from decaying. The same cultural remarks are applicable to *C. dowiana* and its variety *aurea*, but when growing it requires a few degrees more heat. The proper time to repot these plants is when growth is fully completed, as at that time the newly-developed pseudo-bulbs emit many

young roots, which speedily establish themselves in the fresh compost. The following plants which are now commencing to grow, and whose young breaks sent out new roots, may safely be

REPORTED OR TOP-DRESSED: *C. Trianae*, *C. labiata*, *C. Leopoldii*, *C. amethystoglossa*, *C. Harrisoniae*, *C. pericalliana*, *C. speciosissima*, *C. gaskelliana*, also a number of other *Cattleyas*, *Laelias*, and their numerous hybrids which have already started to grow. If any of these plants require attention in this matter, do not delay the work, or many young roots will get damaged, however careful the operator may be. When repotting the plants do not disturb or injure the old roots more than is unavoidable, but carefully place them in fresh clean pots. Keep the base or rhizome of each plant about on a level with the rim of the pot, and any plants that are not well rooted a few neat stakes may be used to hold them firmly in their places. Allow plenty of the Bracken Fern rhizomes, which are taken from the peat, for drainage; in fact, one cannot err in this respect. This should be secured by the roughest part of the compost or by a thin layer of fresh sphagnum.

THE COMPOST should consist of two-thirds of the best fibrous peat and one-third of sphagnum, adding a little rough leaf-soil, coarse silver sand, and small crocks. The whole should be thoroughly well mixed together. After several experiments I find this mixture is to be preferred for large specimen plants, but for small seedlings and plants that are being potted on from 3-inch pots up to 5½-inch pots a compost consisting of peat, leaf-soil, and chopped sphagnum moss in equal quantities, with the addition of sand and crocks, is advisable, if proper care is taken in watering the plants. By this I mean the compost should never be thoroughly soaked through, merely keeping the surface moist at all times. The surface of the compost in which the smaller plants are potted should be covered with about half an inch of freshly gathered sphagnum moss. Bring this close up to the rhizome of the plant and to the rim of the pot. Pot the plants moderately firm, keep them well shaded from strong sunshine, and water sparingly, especially the larger plants, until the roots have established themselves in the fresh compost, but the surroundings should be kept fairly moist by syringing well between the pots several times each day. *C. speciosissima* will grow and bloom freely if placed in shallow pans and suspended close to the roof glass in the Mexican house.

Burford Gardens, Dorking.

W. H. WHITE.

KITCHEN GARDEN.

DUTCH HOEING.—As the spade in winter is indispensable in the kitchen garden, equally so is the Dutch hoe during the growing season. I consider it an absolute necessity for the successful cultivation of vegetables to make free and frequent use of this implement. Surface stirrings open the upper stratum of the soil for the admission of air and warmth to the roots of plants, while in dry weather a very considerable amount of moisture may be prevented from escaping by free employment of the Dutch hoe. After showery weather its use is also very beneficial, especially if the ground has a tendency to become hard and caked. These surface hoeings ought never to be delayed until weeds become apparent, but should rather be of a preventive character. In fine weather it pays well never to let the hoe remain idle. The garden rake in dry weather may well be laid aside, for, unlike the Dutch hoe, it is practically useless among growing plants. A smoother surface may be left behind, but this does not add to the well-being of the plants; besides, much good soil is frequently removed along with the rakings to the disadvantage of the crops. The Dutch hoe should now be used among vegetable seed rows and between the drills of Cabbages, Cauliflowers, Potatoes, &c.

GENERAL WORK.—At this season the gardener's duties are extremely onerous; needful work claims his attention in all directions. Under these circumstances his best policy will be to take the most necessitous first. Young Celery plants that are ready for pricking out should be immediately attended to, as no vegetable suffers more readily than

CELERY, when allowed to grow too long in its seed-bed, besides getting drawn and weakly, the roots become intermixed, and it is impossible to separate them without injury to the plants. Celery plants pricked out some time ago will require an application of weak liquid manure twice a week to keep them moving forward. The soil they are growing in must, of course, be thoroughly moistened before applying the stimulant. These plants should now have abundance of air to prepare them for being planted out at an early date.

BRASSICAS.—Sow more Cabbages, Brussels Sprouts, Savoy, and Cauliflowers; prick out former sowings. It is profitable to prick out all young plants of the Brassica family from their seed-beds some time before they are to be planted into their permanent abodes. A little more labour may be needed to do so in the beginning, but it pays well in the end, preparing for dry weather in June. During this month spells of dry weather frequently occur, when much planting out must be accomplished. In gardens where labour is plentiful watering can be resorted to, but it often happens that both labour and water are scarce; then the situation becomes serious indeed. After contending with this difficulty for several seasons, I hit upon a plan which has proved highly successful. My plan is to sow the Brassica seed very thinly where they are to grow. When these attain a proper size they are thinned out, leaving the strongest plants only. The little extra seed used is lost sight of in the satisfaction of being able to keep up a constant supply in spite of dry weather.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

THE FRUIT GARDEN.

THE SPENCER SEEDLESS APPLE A FRAUD.

I HAVE noticed several recent references to the Spencer Seedless Apple in English publications, from which I infer that the Colorado introducers of this fruit are now trying to bring it before the British public. I cannot think that any person with a discriminating palate would eat the Spencer if offered a juicy Turnip as an alternative dessert. To my mind it is lower in quality than that rosy-cheeked imposter Ben Davis. I am sending you, under separate cover, a copy of the *Rural New Yorker*, containing illustrations of the Spencer Apple, and a fair judgment of its quality.

Maywood, N.J. EMILY TAPLIN ROYLE.

"After this statement of the facts we can have no objection if readers decide to buy the seedless Apple trees and plant them. They must decide for themselves whether this 'novelty' is novel enough to be worth five times as much as a tree of known good quality. If, however, the Spencer Company intends to operate on the plan followed by creamery and cannery sharks we do not hesitate to advise our readers against entering such enterprises.

"There is nothing in sight to warrant the claim that this Apple is to 'monopolise the markets of the world.' Who would believe such a claim if made for the Kieffer Pear? Yet Kieffer is as likely to drive Bartlett, Bosc, Clapp, and the other good ones out of business as this seedless Apple is to dispose of Baldwin, Northern Spy, or other standard sorts. We would not join a stock company for the propagation of this fruit. The Apple is not high enough in

the cold pit, and it is an advantage to have them planted in September, so that they may have an opportunity of getting hold of the soil before winter sets in. Unless they are well established in the autumn they will never produce a satisfactory crop of fruit the following spring. Allow 12 inches between each plant in the rows and place the rows 2 feet apart. Attend to the plants with care for a week or two, watering them carefully and shading if necessary. Keep the frame perfectly cold throughout winter, and, except during very rough and wet or snowy weather, allow the sashes to remain off altogether. Weeds will quickly make their appearance when the weather becomes warmer, and these, together with all runners (unless required), should be cleared away. If a good number of Strawberry plants are forced under glass, giving a supply of fruit until early June, it will not be necessary to hasten the flowering of the plants in the cold frame at all.

All that is necessary is to pull on the sashes as soon as the flower scapes begin to push up. Give all the air possible consistent with the proper protection of the flowers from cold rain and wind, and they will set quite freely. If after the fruits are forward it is found necessary to hasten their ripening somewhat, this can easily be done by closing the frame early in the afternoon when the sun is still shining upon it. Well syringe the fruits daily when they are swelling; moisture at this stage of growth appears to assist in their development very considerably, and prevents their becoming hard, as Strawberries are then apt to do. I have found no two varieties better for this purpose than Royal Sovereign and La Grosse Sucrée. Both bear remarkably good crops, and both are handsome and palatable fruits.

This system of culture is quite simple, and besides being valuable in bridging over the time between the finish of the indoor crop and the commencement of the outdoor one, it is one that might with great advantage be practised by amateurs and others who have not the accommodation for cultivating forced Strawberries in glass houses. If the soil is made firm before planting, and has been well enriched, the plants made firm also, the frame kept quite cool, the flowers protected from frost, &c., a good crop of fruit may invariably be expected. Much can also be done to hasten the ripening of the early Strawberries out of doors, but of various methods tried nothing gives such satisfactory results as a narrow south border at the foot of a high garden wall. If this can be secured there should not be much danger of obtaining a good crop of fruits early in June, that is, if the weather is not exceptionally untoward. It is surprising how much benefit the plants derive, so far as the early production of fruit is concerned, from such a situation. When the flowers make their appearance, provision should be made for rolling a canvas over them at night; a covering of this kind will protect the blooms from a good deal of frost.

The easiest method of arrangement is to fix a few short stakes, about 1 foot from the ground, at the top and bottom of the border, and connect them with thin pieces of wood; upon these the canvas can quickly be rolled in the evening and removed in the morning.

A good mulch applied earlier in the year will have a very beneficial effect upon the crop of fruit when the Strawberries are well formed. To some extent it also protects the plants, and it certainly assists in forwarding them by keeping the roots and their surroundings warm. Noble



STRAWBERRY ROYAL SOVEREIGN IN POTS.

The following is the opinion of the *Rural New Yorker*:

"A Pome or Apple-like fruit is, botanically, the enlarged and softened flower-stem overgrowing the ovary or true fruit, made up of woody or bony carpels (coreplates) and seeds. In the Spencer and other seedless Apples the seeds alone are absent, but the objectionable core is present as usual. Unless the seedless variety should possess in addition unusual good quality or other valuable attributes, it is not easy to see why it should be particularly desirable, except as a curiosity. We are told the Spencer Apple promoters expect to develop seedless varieties of commercial Apples, such as Winesap, Jonathan, Bellflower, and Gano. This can only be done by the usual breeding methods of cross-pollination and careful selection of succeeding generations. While it is within the range of possibility that seedless varieties resembling to some extent our present successful commercial Apples may in time be secured such result is most uncertain, and likely to require indefinite time

quality to make any impression in the market, and it cannot live on the 'novelty' feature alone."

EARLY STRAWBERRIES.

A good early crop of Strawberries is a valuable asset in most gardens, for from the time the supply of fruit from plants grown under glass is exhausted until Strawberries are plentiful out of doors there is invariably a serious diminution in the gatherings, and often a complete break. There are two points to be observed if the critical period in the Strawberry season is to be safely tided over; the one is to have a suitable stock of good early varieties out of doors, and the other to have a cold frame planted with strong plants. These latter and the early outdoor varieties should, if they are both successfully treated, make ends meet.

First a few words as to the occupants of the cold frame. The soil in this must be well prepared the previous August by digging in plenty of farmyard manure, for the Strawberry delights in good rich soil. Make the latter firm before planting; well-rooted layers six or eight weeks old are the best plants to use for filling

is a variety that will turn in earlier than any other. It fruits well, bearing very good crops, although the flavour is none of the best. Royal Sovereign is undoubtedly the one to rely upon for an early gathering out of doors. Keen's Seedling may also be planted with advantage as an early variety, and these could not be followed by a better Strawberry than La Grosse Sucrée. H. T.

FRUIT PROSPECTS.

ALTHOUGH last year the fruit crops were in a general way exceptionally heavy, it was not the case here. Many varieties of Apples did not bear fruit; only a few sorts of Pears, and Victoria was the only Plum that gave anything like a full crop. All the better-flavoured varieties grown on walls, such as Belgian Purple, Jefferson's, and the Gages carried scarcely any fruit; indeed, there was but very little blossom. In looking round the garden recently I was pleased to find that the prospect for fruit, as far as the show of blossom-buds is any sign, is far more general in this garden than last year. Apricots are covered with bloom, and the same may be said of all varieties of Plums. Some trees that have not fruited much for years should do so this season if all goes well. One old tree in particular is worth mentioning; it has had no fruit on it for at least a dozen years, until last season it bore about half a dozen good-sized specimens, which I found was Jefferson's. The tree is now completely covered with blossom-buds from the ground line to the top of the wall. No doubt the dry summer and autumn has had something to do with bringing about the change, in thoroughly ripening the wood. Peach trees are also flowering well, and the wood at pruning time I found to be quite firm and well ripened. As the trees are well protected from frost, it is hoped that a good crop of fruit will be secured. Morello Cherries invariably fruit well; indeed, in this garden they bear more regularly than any other fruit tree. The blossom-buds are quite as plentiful as they usually are. Both Apple and Pear trees promise a good crop of fruit, but so much depends on circumstances that it is as well not to be over-sanguine. Nearly all varieties of Apples should bloom well, but on some free-fruited varieties of Pears the buds are rather sparse. On the other hand, however, varieties that do not fruit very well as a rule give the appearance of doing so this year. A large old tree of Vicar of Winkfield growing on a wall, which has only produced a small quantity of fruit on the ends of its branches for several years, seems to be making a fresh start. It is now carrying a quantity of blossom-buds, evenly distributed over the tree, even the thick centre stem having its share. It is too early yet to say much about small fruits, but young beds of Strawberry plants set out last summer are looking particularly well, the warm weather of March giving them an early start into growth. It will be remembered that insect pests were very plentiful last season, and it may be as well to be on the look out early. Many trees here not previously infested with American blight were last season, and all have been sprayed with caustic soda and potash solution.

Wiganthorpe.

J. S. U.

BOOKS.

Familiar Wild Flowers.—Mr. F. E. Hulme, F.L.S., F.S.A., has prepared forty new drawings in colours of wild flowers, which will appear in the new and enlarged edition of his well-known work "Familiar Wild Flowers," the first part of which will be published by Messrs. Cassell and Co. on the 27th inst. In the new edition of this work will be 320 full-page coloured plates, and in the first part will be given an index in which all the flowers will be arranged according to their colour. The publishers are offering subscribers to this edition binding covers free of charge.

Les Plantes Médicinales Indigènes.*—This little pamphlet reminds us of some of the old herbalists' books that our grandmothers used to set great store by in the days when the cultivation of simples and other herbs was much more attended to in our country gardens than is the case to-day. The authors, after a brief introduction on the subject of remedies obtainable from such plants, and the use of them in popular medicine, give a list of medicinal plants indigenous to France, in which appear first the ordinary name, then the botanical name, and the natural order to which each belongs. These are all arranged in alphabetical order, and are preceded by a short explanatory glossary of such terms as Astringents, Carminatives, Diuretics, Emetics, Emollients, Sedatives, Tonics, &c. Each plant is followed by a short descriptive account as to its habitat, the portion used in medicine, the complaint for which it is used, and the mode in which it is administered, together with occasional remarks more or less needful as circumstances require. The authors say it has been supposed that vegetable medicines have become useless since chemistry has been able to extract from plants the active principles, but the extract from a plant does not replace the plant itself. Already a certain reaction has taken place among medical men, although in our time we are not likely to accept some of the supposed virtues of plants held in esteem by our ancestors. Without allowing our credulity to be imposed on, there are medicinal plants that may be used judiciously by many people. Such of these as are indigenous to France are those treated by the authors of this little pamphlet.

Les Peupliers.†—This is one of the numerous little horticultural pamphlets that have been issued by the proprietors of the *Librairie Horticole*, whose catalogue comprises a very large and varied selection of works more or less connected with gardening subjects. The contents may be briefly summarised as dealing with general and botanical details relating to the Poplar, descriptions of the various kinds grown in France, propagation, planting, culture, insects and diseases with necessary remedies, and the uses to which the Poplar can be applied.

LEGAL POINTS.

WHAT are the rights of an owner of land where branches of trees, growing on adjoining land, overhang, or where roots penetrate his soil?—H. W. W.

It has been established for centuries that an owner of land has a right to cut away the boughs of trees which overhang it, although the trees are not his, on account of their trunks being in the land of another. Nor does it matter in the least how long the branches have overhung, because no right to their overhanging can be gained by prescription. It has recently been established, by a decision of the House of Lords, that this may be done without any previous communication or notice to the owner of the tree, provided that the cutter confines himself and his operation to his own land, including the space vertically above its surface. There was but little doubt about this right before. It is still possible, however, that this right of cutting without notice may not apply to trees so young that the owner might remove them intact if he chose to lift them, or to shrubs capable of being transplanted. But the difficulty that almost always occurs is that boughs cannot be effectually lopped without some part of the body or ladder or other instrument getting over the boundary line. This may constitute a trespass, and is therefore actionable. In order to obviate this

* "Les Plantes Médicinales Indigènes." By MM. G. Gibault and J. Bouysson. *Librairie Horticole*, 84 bis rue de Grenelle, Paris.

† "Les Peupliers." By J. Beaumont. *Librairie Horticole*, 84 bis rue de Grenelle, Paris.

danger, a written notice to the owner of the tree, pointing out the fact of overhanging and asking him to remedy it, should always be given; for if, after the lapse of a reasonable time, he shows no signs of so doing, or if he refuses to do so, an entry on his land, provided it be peaceable, in order to do it yourself would be justified. What is a reasonable time cannot be laid down with absolute precision, as the circumstances of cases differ. It need hardly be pointed out that it is much more gentlemanly and neighbourly conduct to give notice in every case, even if you can abate the evil without committing a trespass. But do the remedies of anyone suffering from the nuisance of overhanging boughs stop here? Must one be put to the expense and trouble of having them cut if the owner will not do so? A partial answer to this question was given last year by a divisional court, where it was held that where damage could be proved to have been caused (in this case it was damage to fruit trees) by overhanging boughs an action would lie against the owner of the offending tree to recover the amount of damage, and it was distinctly laid down that the owner of the offending tree cannot compel the injured person to seek his remedy in self help; and there appears to be no reason, in principle, why, where damage can be proved which will continue unless abated, the court should not make an order compelling the owner to cut. Where damage cannot be proved it may well be that the only remedy lies in abating the nuisance one's self. With regard to the roots of your neighbour's tree which penetrate into your soil the law as to the right of cutting them off up to the boundary line, including the space vertically below the surface, is precisely the same as in the case of overhanging branches. Of course, however, as it cannot be necessary to enter on your neighbour's land to do so there is not any necessity for notice to be given. Whether when actual damage done by the roots can be proved an action to recover the amount of damage will lie has not yet been decided, but, in principle, it seems that it cannot be differentiated from the case of overhanging boughs.

LITTLE MAID'S SLUMBER SONG.

Sleep, my love! Thou little one,
Knowest nought of shining sun;
Nought of moonlight pure and fair,
Nor of woodland flow'rets rare.
Sleep, my darling! sleep and grow;
Mother all to thee will show.

Thou shalt see the wondrous sky,
And the mighty sun on high
Lighting up the meadow's green
And the Violet's purple sheen.
Thou shalt pluck the Violets staid
Whilst I hold thee, little maid.

At my breast, O little child,
'Mid the morning breezes wild,
Thou shalt play, while joyful sound
Echoes o'er thee and around;
Softly whisper stream and tree
When thy mother kisseth thee.

Sleep and grow, my little love!
From my arms look up above
Where the evening sun doth glow.
See the peaceful fields below
Lit by gold and purple pale.
Hear the singing nightingale.

When the nightingale doth sing,
Comes the moon on silver wing.
See, she's peeping at us now;
All the flowers before her bow.
Let me fold thy tiny hands—
Sweet! God's angel near thee stands

God is in the starry sky,
In the lowly Violet's eye,
In the wood where birdsongs ring,
In my heart when "Sleep!" I sing.
Little maiden, everywhere,
Just remember—God is there.

JACOBI.

—(Translated by SYDNEY HESSELRIGGE.)

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

CALCEOLARIAS (*Constant Reader*).—It is most probable that your plants have been improperly watered. You say you gave them water twice a week. This may or may not have been too much. You should not water your plants by rule of thumb like this, but give it to them when they require it, that is, when the soil appears dry or if the pot gives a ringing sound when rapped. Your soil may be too poor, for they like a rich one. You should not syringe them, but damp between the pots. Give weak manure water twice a week.

VINE LEAVES DISEASED (*J. W. C.*).—The Vine leaves that you sent are attacked by a fungus, probably a species of *Cercospora*. The Fig was infested by a fungus (*Botrytis cinerea*). The Fig leaves were also suffering from the effects of a fungus, but it was not in a condition that I could name it. I should advise you to pull off as many of the affected leaves as you can in both cases and burn them, and spray the others with Bordeaux mixture. I should recommend the same treatment in the case of the Figs. Another time, as soon as the diseases appear, spray with the Bordeaux mixture three times with intervals of a week.—G. S. S.

HOW TO GROW RHUBARB AND VARIETIES (*S.*). It often happens after a few years that Rhubarb grown in one place becomes weak and needs replanting, and also, if possible, give a fresh quarter with new soil well enriched with manure. In market gardens large breadths are planted annually, and in most cases the old roots are lifted and split up into several pieces, each portion having a good crown. The pieces of root are replanted in deeply-dug, well-manured land. In a private garden it is well to make a new quarter every three years, destroying an old one. When this is done the return is much greater from a small plot of land, and, what is equally important, the produce is better in every way. You ask what is the matter with your plants, the stalks are wrinkled, and at times stringy when cooked. This is readily explained—the growths are deficient in moisture, the growth having been too slow. The roots are impoverished at the base. They are fairly moist and tender, but when exposed they soon get hard. Of course, there may be no great fault with the culture, but you give no particulars as to manuring, soils, or position. The fault may arise from other causes, and in many small gardens the variety of Rhubarb is at fault. Only last week we were in a garden and the owner complained of the Rhubarb. He had only bought the roots two years ago, but from a source that was unreliable. We advised some good roots of Champagne and throw the inferior ones away. You ask for the best varieties and for a succession. Although now quite late enough to plant, it may be done successfully if a mulching with short manure is

given after planting, and, should the early part of the summer be dry, occasionally watered, but, of course, the returns in the way of stalks will be nil this season. You will be well off next year, however. There are some excellent varieties. Quite recently a Rhubarb has been introduced from the Colonies that begins to grow quite early in the autumn without any forcing; indeed, it is so precocious that it gets cut down by the first frost unless protected. It is a nice red variety, not large, but valuable on account of its natural growth so early in the season. This has been exhibited on several occasions by Messrs. Sutton, Reading. The same firm also have a splendid variety called the Sutton Rhubarb. This is very distinct, and of splendid colour and flavour. Another very fine Rhubarb recently sent out by Messrs. Veitch, Chelsea, is Daw's Champion. This is one of the best introductions of recent years, remarkably early, the stalk large and beautiful, and rich in colour and flavour. Doubtless the best all-round Rhubarb is Hawke's Champagne. It is later than Daw's, but a splendid variety to form a succession. For earliness in the open ground the Early Scarlet is one of the best, and this in some cases is grown under other names, so that it is well to get new stock from a good source. It is not of such good flavour as the Champagne, and if earliness is not an important point we would advise the Champagne in preference. Another very good and early Rhubarb is Royal Albert or Early Red. It is not so early as the Early Scarlet, but quite equal to it in quality. For later use Myatt's Victoria is one of the best. Doubtless the above number will suffice, but if very large stalks are needed Stott's Monarch is one of the best; it is also late. Whatever variety is grown the land should be deeply dug and well enriched with decayed stable manure. Plant at 3 feet between the plants, and make a new bed every year.

PRUNING ALMOND TREES (*Rebecca*).—Your Almonds ought not to require much pruning. If any is done it should be in the form of thinning rather than cutting back, except in the case of branches that may be getting out of bounds. You did quite wrong to shorten the branches in autumn. The buds for the following spring's flowers were formed then, and you cut them off. Pruning, if required, should be done as soon as the flowers are over in spring. You say that your trees grow very rapidly. From this we should say that they require root pruning. Try making a trench 2½ feet or 3 feet from the trunks and all round the trees, and cutting the large roots. Be sure that you make clean cuts that will heal quickly. When pruning branches or roots paint the wounds over with tar as a protection from the weather and fungus spores.

NEGLECTED PLUM TREES (*A. G. C.*).—Yes, cut down the leading shoots that are right above the wall, or, rather, cut them out altogether. It will not do any harm to do this now. If there are any gross, very vigorous shoots in the tree cut them right out; you will never get fruits from them. It is upon the moderately vigorous shoots that fruit-spurs are produced. Cut out some of the oldest worn-out branches and train in young growths. Cut back any of the spurs that have become long and have left the shelter of the wall. Remove a few inches of the surface soil 4 feet away from the wall, and top-dress with turfy loam with which some lime rubble and bone-meal has been mixed.

ASPIDISTRA (*Spew*).—You may divide this now, although it would have been better a month earlier before growth was so far advanced. However, if you do the work carefully, taking care not to damage the roots, the plants will soon recover from the temporary check and grow away strongly. A soil composed of two parts loam, one of leaf-soil, with some silver sand mixed with it, and all well mixed together, would do well. Be very careful to keep the plants out of draughts

and cold and direct sunshine for a few weeks after potting. Make the soil fairly firm, and see that it is pushed well between the roots and the sides of the pot. Water when you have finished potting; then do not water again until the soil seems fairly dry. Later on, when the plants are well rooted, more water will be necessary.

ANDROSACE LANUGINOSA (*Mrs. M. M.*).—This plant frequently suffers badly during our damp winters with its silky foliage, drip from overhanging trees being most fatal to it. The best position for it is an open one facing south, planted on a rocky ledge in sandy loam. If the shoots are dead they should be cut off, but if the growing points are still alive they may be pegged down and a slight top-dressing of gritty soil given. Providing that there is perfect drainage, your plant will soon recover itself and grow rapidly. This plant is somewhat later in starting into growth than its fellow species *A. sarmentosa*. It naturally follows that when a plant has occupied the same position for a length of time the soil gets exhausted of the particular constituents that it requires, so that either a fresh place has to be selected and the plant transferred, or the soil in the old position must be renewed.

PRUNING NEWLY-PLANTED FRUIT TREES (*S.*). Very little pruning of the newly-planted trees will be needed this season, and as you say your trees are three or four years old the transplanting in the autumn will cause a check, so that the growth this year will not be very great. Some good growers say do not prune the first year, others say shorten the long shoots, but this shortening has a tendency to promote a free growth at the upper portion, and in years to come there will be a barren growth lower down. We advise shortening back this season to induce a break lower down. Much may be done by pinching any misplaced shoots; indeed, the first season the grower will find pleasure in stopping a growth here and encouraging one elsewhere, and by removal of others not required. This done, there will be very little use for the knife the first year. With regard to thinning of the fruits, these will be best left till the season is a little more advanced, as it is not safe to thin the flowers too soon, even after the fruit has set. It is an easy matter to thin out afterwards, and in a short time it will soon be seen which are likely to take the lead. Of course, the first season you must crop very lightly indeed, and on trees the age you name you can only allow a small quantity of fruits to develop, and these will not be large.

ASPARAGUS (*S.*).—There are not many forms of Asparagus, and even when a certain sort is selected it is difficult for a time to find out if the true variety is secured. Few, if any, vegetable plants require greater care in seeding, as indiscriminate seed sowing gives poor results. Far better obtain seed from a good grower than save one's own seed of a poor variety. Of course, it is not at all difficult to get seed true to name from our leading seedsmen, and my remarks as to difficulties in the variety is when seedlings are obtained at this season. In France special attention is paid to this plant and to the seed stock, with the result that splendid results are secured. Most of our leading seed firms will supply the well known Argenteuil, a favourite Asparagus in the Paris markets. Of home-grown sorts we do not think the Conover's Colossal can be beaten. This is one of the best, and many prefer it to the purple Argenteuil named above. There are also others, such as the Perfection and Battersea, but so much depends upon the seed stock. We would add now is a good time to sow seed, and avoid crowding, as this sadly weakens the growth. There should be no delay in planting. The seedlings should not be exposed longer than possible, and they should also be kept moist, the roots carefully spread out in soil previously prepared, and it should not be too wet or sticky at planting.

NAMES OF PLANTS.—*Iverian*.—*Ribes aureum*.—*A. E. S.*—*Spirea Thunbergi*.—*C. S. C.*—1, *Adiantum decorum*; 2, *Adiantum Legrandi*; 3, *Cotoneaster microphylla*; 4, *Pieris (Andromeda) floribunda*.

NAMES OF FRUIT.—*T. Hunter*.—1, Lord Raglan; 2, Dutch Mignonne.

SHORT REPLIES.—*W. G. S.*—The appearance of your Begonia tubers would suggest that the hot-bed had proved too warm for them, and this, combined with an excess of moisture, had caused some of them to rot. Tubers that have been kept dry all the winter must be moistened very gradually, otherwise failure will result. The plants you mention may now be safely pricked out in a sheltered border, provided (and this is a most important item) they have been exposed to plenty of air and sunshine, so that their growth is short and sturdy, as if drawn up tall and fragile they are sure to suffer whenever they are planted out.—*F. F. L.*—Without knowing more of what the flue dust is composed of or without a sample it would be unsafe for us to venture an expression of opinion as to its use as a manure for the garden.

SOCIETIES.

BRIGHTON AND SUSSEX.

THE fourteenth annual spring show of this society was held, as usual, in the Corn Exchange and Dome, Brighton, on Tuesday and Wednesday, the 12th and 13th inst., and, except that the weather was somewhat showery on the first day, it was a great success. There were no less than eighty-one classes, principally devoted to spring-flowering plants, the majority of which were well filled. There were several very fine honorary exhibits, the most notable being that of

Messrs. William Balchin and Son, who occupied the centre of one end of the Corn Exchange. Not only was the arrangement excellent, but the quality of everything employed denoted the highest cultural skill. The splendidly-grown Cocos, Kentias, Crotons, and Dracenas were most conspicuous among foliage plants, while Anthuriums, Lilliums, Azaleas, Begonias, and Hydrangeas were staged in bold masses with a groundwork of Fern. A truly magnificent exhibit.

Messrs. J. Cheal and Sons of Lowfield Nurseries, Crawley, also made a fine show of plants, cut flowers, and fruit, and also put up an interesting piece of rockery, which was well planted with suitable subjects.

For a group of flowering and foliage plants the place of honour was occupied by Mr. G. Miles, Victoria Nursery, Dyke Road, Brighton, who has made for himself quite a reputation in grouping. His group this year was bright, effective, and lightly arranged, and contained many well grown flowering and foliage plants. An Asparagus which he named *rigidus*, and which, I believe, is not yet on the market, is always a tower of strength to him. It is distinct, light, and beautiful. The second place was occupied by Mr. S. Sims, gardener to E. A. Wallace, Esq., Sunnyside, Upper Lewes Road, Brighton, also with a very fine arrangement.

The class for a table of flowering and foliage plants is always a strong feature at Brighton. The first prize was worthily won by Mr. Head, The Drive Nursery, Hove, with an exceedingly light and tasteful arrangement; second, Mr. H. Goldsmith, gardener to D. Hack, Esq., J.P., Fir Croft, Withdeane, running Mr. Head very close.

For a table of Orchids, Mr. J. Harper, gardener to E. A. Tucker, Esq., Vernon Lodge, Preston, far outdistanced the other competitors, both the variety and culture of the plants being excellent.

For a mantelpiece and hearth arranged with plants for effect, Mr. G. Miles was again first.

For twelve Hyacinths, single spikes, Mr. J. Harper and Mr. J. Eereveld, gardener to H. Young, Esq., Withdeane Grange, were first and second respectively. King of the Blues, Sutton's Matchless (a fine bright yellow), Sutton's Favourite, Lord Balfour, and Czar Peter were among the best in the two collections.

For twelve pots of Tulips Mr. Eereveld just managed to beat Mr. Harper, both showing well.

Lilies of the Valley were a great feature and finely grown, for twelve pots Mr. G. Eastwood, gardener to Mrs. Gould, Hassocks, being well ahead; second, Mr. J. Eereveld.

Six pots of Mignonette: This was a grand exhibit. Mr. J. Mills, Southdown Nursery, Kingston-by-Sea, was worthily first with some magnificent specimens; second, Mr. G. Eastwood.

Violets were beautifully shown in pots by Mr. J. Adams, gardener to the Rev. Sir G. C. Shiffner, Bart., Coombe Place, near Lewes; second, Mr. G. Mann, gardener to J. Dudgey, Esq., East Hill House, Portslade.

For six Carnations in pots Mr. G. Eastwood and Mr. J. Goldsmith were first and second.

For twelve pots of Narcissus Mr. J. Harper was first, as he also was for twelve pots of Polyanthus Narcissus, the latter especially being remarkably good.

Persian Cyclamen were not nearly so well shown as they generally are at Brighton.

Cinerarias formed a striking feature. For twelve, Mr. G. Miles was a good first; second, Mr. H. Goldsmith.

Amaryllis were nicely shown by Mr. Goldsmith. For nine greenhouse Azaleas Mr. F. Collis, gardener to Mrs. Hughes, Preston Park Avenue, Brighton, showed a well-flowered fresh set; second, Mr. Sims.

For six pot Roses Mr. S. Chandler, gardener to Mrs. Billington, Lee Hurst, Withdeane, was well to the front with very fine specimens.

For six Ghent or mollis Azaleas Mr. Head was first with well-flowered plants.

For six Strawberries in pots Mr. Eastwood occupied the premier place, as he also did for twenty-five fruits, picked. The competition in these classes was very keen.

For twelve bunches of cut Narcissus Mr. J. Harper was first, followed closely by Mr. M. Tourie. These were wonderfully well staged, and the first prize lot consisted of C. J. Backhouse.

Mr. H. Garnett, gardener to R. G. Fletcher, Esq., Mount Harry, Withdeane, was a splendid first for twelve varieties of cut flowers, showing all choice Orchids; second, Mr. G. Eastwood.

For twelve cut Roses Mr. G. Mann was first; second, Mr. G. Miles.

TABLE DECORATIONS.

There are few places in the country where these are done better than at Brighton, and this year nine competed, all of them being excellent. Miss Mabel Howell, Tower Lodge, Queen's Park, Brighton, stood out conspicuously as the winner with a delightful arrangement, using prettily tinted *Primula obconica*, *Jonquil*, *Campanelle*, *Lily of the Valley*, beautiful *Croton* leaves, *Asparagus*, and *Ferns*; second, Mrs. Ripley, East Grinstead, another noted exhibitor; third, Miss V. Thomas, Miran-shah, Preston Park. So good were these that two extra prizes were awarded.

Classes devoted to gardeners and amateurs were well contested, and in most cases the exhibits were of a high order of merit.

Mr. J. Thorpe, the able and courteous secretary, and the other hard-working officials connected with the society are to be heartily congratulated on getting together three such fine shows during the year as they do at Brighton.

MIDLAND DAFFODIL SOCIETY'S SHOW.

THE annual exhibition of this society was held on the 18th and 19th inst. in the Botanic Gardens, Edgbaston, in wintry weather. There was an excellent display of Daffodils and a representative gathering of enthusiasts, among them being Miss Willmott, Miss Currie, the Revs. G. H. Engleheart and E. Bourne, Messrs. R. Sydenham, G. Pope, J. Walker, F. W. Burbridge, Backhouse, D. Pearson, P. R. Barr, W. B. Latham, and others. The exhibits were arranged, as usual, in the corridor, which is an ideal place for them. At the luncheon sympathetic reference was made to the recent death of the Lord Mayor of Birmingham, a supporter of the society. In the evening Mr. Robert Sydenham and Mr. Pope invited a large number of exhibitors, officials, and visitors to dinner, and a most enjoyable evening was spent. After dinner there followed a discussion about Daffodil culture, in which the Revs. G. H. Engleheart and E. Bourne, Messrs. Barr, Sydenham, Pope, and others took part. Heartly thanks were expressed to Mr. Sydenham and to Mr. Pope for their hard work in furthering the interests of the society.

Fifty varieties of Daffodils: First, Messrs. Pope and Sons, King's Norton, with a very beautiful lot, for instance, King's Norton, Weardale Perfection, Boniface, Olympus, Emperor and other Ajax sorts, Lucifer, Will Scarlet, Orangeman, Flamingo, Southern Star, and others of the Medio-coronati type, as well as some fine Parvi-coronati varieties.

Twenty-five varieties of Daffodils: First, Mr. H. B. Young, Metheringham, with such as Gloria Mundi, Mrs. J. B. M. Camm, Mme. de Graaf, Ellen Barr, John Bain, Vesuvius, Captain Nelson, Glory of Leiden; second, Mr. W. A. Watts, Bronwyfa, St. Asaph; third, Mr. J. Mallerder, Workop.

Twelve varieties of seedlings: The first prize was won by Mrs. Berkeley, Sketchley Park, Worcester, with some beautiful flowers. They comprised Incognita, white, with flat pale gold cup; Aurora, rounded perianth segments, yellow orange-tipped cup; Rhymester, a fine poeticus; Earl Grey, primrose yellow trumpet; Siren, a huge bicolor Ajax; and Robert Berkeley, pale sulphur, with short frilled trumpet. The second prize was won by Mr. P. D. Williams, Lanarth, St. Keverne, R.S.O., Cornwall; third, Miss Katharine A. Spurrell, Hanworth, Norwich.

Six varieties of Daffodil seedlings raised by the exhibitor: First, Messrs. Pope and Sons, Birmingham, whose flowers were unnamed; second, Miss K. A. Spurrell; third, Mr. J. Mallerder, Hodsock Priory Gardens, Workop.

Twelve varieties of trumpet Daffodils: First, Messrs. Pope and Sons, King's Norton, Birmingham, with splendid Glory of Noordwijk, Glory of Leiden, Emperor, King's Norton, Mrs. Camm, and others; second, Rev. G. F. Eyre, Far Forest Vicarage, Worcester; third, Mr. H. B. Young, Metheringham, Lincoln.

Six varieties of trumpet Daffodils: First, Mr. J. Mallerder, Hodsock Priory Gardens, Workop; second, Mr. C. L. Branson, Coleshill Park, Coleshill; third, Mr. W. A. Watts, St. Asaph.

Twelve varieties of Medio-coronati: First, Mr. H. B. Young, Metheringham, Lincoln. Included were Barri Flora Wilson, Lincoln, Lulworth, Lucifer, Barri conspicuus, and Gloria Mundi. Second, Rev. G. F. Eyre, Far Forest Vicarage, Worcester; third, Messrs. Pope and Son, King's Norton.

Six varieties of Medio-coronati: First, Mr. A. R. Goodwin, Kidderminster, with Autocrat, Ceres, Resolute, Katharine Spurrell, Waterwitch, and Citron; second, Mr. C. L. Branson, Coleshill; third, Mr. W. A. Watts, St. Asaph.

Six distinct Parvi-coronati: First, Messrs. Pope and Sons, the only exhibitors. Oriflame, Southern Star, Picotee, C. J. Backhouse, and Lidia Pope were included.

Six varieties of true Poeticus: First, Mr. H. B. Young, Metheringham, with Ornatus, Cassandra, Almira, grandiflorus, g. præcox, and Homer; second, Messrs. Pope and Sons.

Twelve distinct Daffodils with orange crowns or cups: The only exhibitor was Mr. H. B. Young, who was awarded second prize. For six similar varieties Mr. A. J. Mallerder was first with C. J. Backhouse, Mary Anderson, Gloria Mundi, and others; second, Mr. A. R. Goodwin; third, Dr. Lewis Jones.

Twelve varieties of Daffodils (not to cost more than 10s. per dozen): Equal first, Mr. R. C. Cartwright, King's Norton, and Mr. S. S. Jones, Preen, Mrs. Muston, Edgbaston, was first in a similar class for six varieties.

For twelve varieties representing the three sections Mr. Cartwright was first; second, Mr. S. Jones; third, Mr. Kenrick, Edgbaston.

Nine varieties of Tulips: First, Mr. A. E. Campbell, Gourcock, with excellent blooms; second, Mr. R. C. Cartwright, King's Norton; third, Mr. S. S. Jones.

The first prize for a group of cut Daffodils on a table was won by Messrs. F. Impey and Sons, Midland Spring Gardens, Northfield, with a charming and simple arrangement. Messrs. Pope and Sons had the best bowl of Daffodils, and Messrs. Felton and Sons, Hanover Square, W., the best bouquet. The first prize for an evergreen was awarded to Mr. J. A. Kenrick, Edgbaston.

Many good pot plants of Narcissi and Tulips were shown in the classes for them. Mr. Sydenham gave prizes.

NON-COMPETITIVE EXHIBITS.

Messrs. Barr and Sons, King Street, Covent Garden, made an extensive display with Narcissi in great variety. Among the trumpets were the rare white Peter Barr, Mme. de Graaff, C. H. Curtis (new), King Alfred, Monarch, Lord Roberts, Pharoah, Weardale Perfection, and others. Of the Medio-coronati type were Gloria Mundi, Strongbow, Nelsoni aurantius, Lucifer, and Apricot Beauty; while of the poeticus type, Salmonetta, Cassandra, Firebrand, Barri conspicuus, Almira, Lady Godiva, and others were shown. This exhibit made a very fine display. Gold medal.

Messrs. Dickinsons, The Nurseries, Chester, exhibited Narcissi in great variety. Such Ajax sorts as Victoria, Emperor, Sir Watkin, Empress, and Mme. Plomp were finely shown, and especially good among other sections were Lucifer, Beatrice, Princess Mary, Cynosure, Duchess of Westminster, and Flora Wilson. Small silver medal.

Mr. S. Mortimer, Rowledge, Farnham, Surrey, sent some finely-flowered Polyanthuses, making quite a bank of colour. Bronze medal.

Hybrid and seedling Narcissi raised by himself were exhibited by the Rev. G. H. Engleheart, Dinton, Wilts. They comprised some very beautiful flowers. Among the named sorts were Delicata, a star-shaped flower, white perianth, lemon yellow cup; Waterwitch, milk white, with spreading perianth segments and trumpet half their length; Glitter, primrose yellow, with scarlet-tipped cup; and Veremiel, white perianth, with flat, orange scarlet cup. Most of the varieties were unnamed. Silver-gilt Flora medal.

Some delightful Narcissi were shown by Miss F. W. Currey, The Warren Gardens, Lismore, Ireland. They were all first-rate sorts. Lady of the Snows (sulphur trumpet), Glory of Leiden, Victoria, King Alfred, White Knight, Captain Nelson, Mme. Plomp (all trumpet flowers), Peach, Gloria Mundi, Queen Sophia, Nelsoni major among the Medio-coronati varieties, and many lovely sorts of the poeticus type were included. Silver-gilt medal.

Some very fine blooms were included in the exhibit of Narcissi from Messrs. J. R. Pearson and Sons, Chilwell Nurseries, Lowdham, Notts. Among the incomparabilis type were Autocrat, Goliath, Backhouse, Maurice Vil-morin, Nelsoni major, Prince Teck, Gloria Mundi, Flambeau, and others. Among the trumpets Duke of Bedford, Siren, Lowdham Beauty (white, with sulphur trumpet), White Queen, Florence Pearson, Sir Francis Drake, Mme. de Graaff, and King Alfred were very fine. Of Parvi-coronati flowers Sensation (white perianth and yellow orange-tipped cup) was charming. Silver-gilt medal.

The Anemones from Messrs. Reamsbottom and Co., Alderborough Nurseries, Geashill, King's County, were very beautiful. Scarlet, pink, salmon, purple, white, blush, and other shades of colour were represented by finer flowers than we have hitherto seen. This group was one of the brightest features of the show. Large silver medal.

Messrs. Gunn and Sons, Olton, Birmingham, exhibited a rockery planted with such plants as Primulas, Auriculas, Aubrietias, Polyanthuses, Violas, Fritillarias, and others, making a bright display. Large silver medal.

The group of Carnations and flowering shrubs from Messrs. Hewitt and Co., Solihull, Birmingham, was very showy and well arranged. Large silver medal.

The zonal Pelargonium blooms from Mr. Vincent Slade, Taunton, were in many brilliant shades of colour, and formed a striking exhibit. Large silver medal.

Mr. Robert Sydenham, Tenby Street, Birmingham, exhibited some very good *Lilium longiflorum* and other plants grown in moss fibre alone. A specimen of Narcissus Mme. Plomp (eighteen bulbs) bore thirty-four flowers. Mr. Sydenham also showed Tulips, Lilies of the Valley, and many Narcissi grown in bowls and moss fibre. Large silver medal.

The Irish-grown Narcissi from Messrs. Hogg and Robertson, Rush, County Dublin, were very good, and included many first-rate sorts. Among the trumpets were Duke of Bedford, Horsfield, Rush Giant, Victoria, Lady Margaret Boscawen; others were Lady Gore-Booth, Lucifer, Lady Annot, Dorothy York, some fine poeticus varieties, Gold Eye, rugulosus, and cernuus plenus. Some Tulips also were in this stand. Large silver medal.

Messrs. Felton and Sons, Hanover Square, London, showed some very fine cut Roses, Carnations, and Pansy plants. Large silver medal.

Sir Josslyn-Gore-Booth, Lissadel, Sligo, exhibited an excellent collection of Narcissi Lulworth, Burbridge, Falstaff, Peach, Leedsi Phyllis, Mme. de Graaf, Grandis, cerneus, Frank Miles, and others were included. Large silver medal.

Anemones were finely shown by Messrs. Gilbert and Son, Dyke, Bourne, Lincs. The variety King of Scarlets was very bright. An award of merit was given to it. Another good variety is Queen of Roses. Anemone fulgens varieties and the St. Brigid Anemones were included in this exhibit. Large silver medal.

Messrs. Bakers, Wolverhampton, had a charming display of dwarf plants, such as Violas, Primulas, Aubrietias, Auriculas, Phlox, Erinus, Iberis, Polyanthuses, &c., effectively arranged on a rockery. Small gold medal.

Messrs. W. H. Simpson and Sons, Birmingham, showed a handsome group of Narcissus in great variety, including many of the best sorts. Large silver medal.

The Misses Hopkins, Mere, Knutsford, Cheshire, showed Polyanthuses, Daisies, Fritillaries, and other hardy plants.

Mr. J. Mailender, Hodcock Priory, Workop, exhibited a collection of Daffodils raised by himself. They included some very good pale yellow and sulphur-coloured trumpet varieties. Bronze medal.

Mr. W. A. Watts, Bronwylla, St. Asaph, was awarded a bronze medal for a collection of Polyanthuses, which contained some excellent strains; the flowers were large, of fine form, and distinct colours. Bronze medal.

NEW NARCISSI.

Awards of merit were granted to *Warleyensis*.—A large and handsome yellow trumpet variety, the perianth segments broad and well formed, the trumpet a deeper yellow. From Miss Willmott, Warley Place, Essex.

Lady of the Snows.—A pale sulphur-coloured trumpet flower, the long, finely-fringed trumpet with frilled edge a deeper shade. From Miss F. W. Currey, Lismore, Ireland.

Odorus rugulosus maximus.—A very beautiful flower, richest yellow throughout the perianth, and short trumpet; a most striking flower. From Messrs. Barr and Sons, Covent Garden. First-class certificate.

Awards of merit were also given to Anemone King of Scarlets, from Messrs. Gilbert and Son, Dyke, Bourne, Lincs.; to the Polyanthuses shown by Mr. Mortimer, Farnham, Surrey, and to a white Tree Carnation The Belle from Mr. A. F. Dutton, Bexley Heath. The premier flowers were: King Alfred from Messrs. Barr and Sons, White Queen from Messrs. Pope and Sons, and Beacon from Mr. P. D. Williams.

NATIONAL AURICULA SOCIETY.

The sixth annual exhibition was held in connexion with the above.

In the classes devoted to Auriculas, the premier alpine variety was Dr. Pegge, included in the first prize exhibit of Mr. J. W. Bentley, Castleton. The premier show bloom was Acme, from Mr. J. Collier.

Mr. W. Smith, Bishop's Stortford, was first for six show Auriculas, and Mr. W. M. Shipman second.

Four show Auriculas: First, Mr. W. Smith; second, Mr. C. Winn.

Two show Auriculas: First, Mr. J. W. Bentley, Castleton; second, Mr. S. T. Healey, Leicester.

Single plants.—Green edges: First, Mr. F. T. Poulson, Stafford, with Mrs. Henwood. Grey edges: First, Mr. M. Shipman, with Geo. Lightbody. White edges: First, Mr. J. Collier, with Acme. Selves: First, Mr. C. J. Fox, Sparkhill, with Mrs. Potts.

Premier show Auricula: First, Mr. J. Collier, Ludlow, with Acme.

Six alpinas: First, Mr. J. W. Bentley, with Pluto, Dr. Pegge, Cynthia, Godiva, Aglaia, and Rosie.

Four alpinas: First, Mr. Bentley. Two alpinas: First, Mr. F. T. Poulson.

Single plant, gold centre: First, Mr. R. Holding, with Richard Dean. Single plant, light centre: First, Mr. F. T. Poulson, with Thetis.

Pairs for maiden growers: First, Mr. A. Lawton. Three show Auriculas (local): First, Mr. C. Wynne. Three alpinas (local): First, Mr. A. Lawton.

Seedling, gold centre: First, Mr. J. Stokes, with Joseph. Seedling, light centre: First, Mr. R. Holding. Four seedling alpinas (local): First, Mr. C. J. Fox.

Group of alpinas: First, Messrs. Pope and Son, King's Norton.

Four Polyanthuses, gold-laced: First, Mr. J. W. Bentley. Single plants: First and second, Mr. Bentley. For the largest number of points the silver medal was won by Mr. Bentley, and the bronze medal by Mr. C. Winn.

A first-class certificate was given to the variety Mrs. E. Osmond, a violet self, shown by Mr. W. Smith, Bishop's Stortford.

ROYAL HORTICULTURAL SOCIETY.

THERE was a very good display of plants and flowers at the Horticultural Hall on Tuesday last. The Primulas and Auriculas, hardy flowers, shrubs, Narcissi, Orchids, and other plants made a splendid show.

ORCHID COMMITTEE.

Present: Messrs. Harry J. Veitch, James O'Brien, de B. Crawshaw, F. J. Thorne, J. W. Odell, R. G. Thwaites, A. A. McBean, W. H. White, G. F. Moore, H. Ballantine, H. T. Pitt, H. A. Tracy, W. Boxall, W. H. Young, F. W. Ashton, H. J. Chapman, H. Little, W. A. Binney, and W. Thompson.

Norman C. Cookson, Esq., Wylam-on-Tyne, Northumberland (gardener, Mr. Chapman), exhibited a group of very fine Odontoglossums, most of them being varieties of crispum of exceptional merit. Among them were the following, each of which has become famous: O. c.

grairieanum, O. c. Britannia, O. c. Bryan (new), O. c. massangeanum, O. c. Frederick, O. c. smeeianum, Chapmani, xanthos, and some large typical crispums. The white variety of Cattleya gaskelliana was also included. Silver-gilt Flora medal.

The group of Orchids shown by H. T. Pitt, Esq., Stamford Hill, N. (gardener, Mr. Thurgood), was an extensive one, and contained many good plants. It was altogether very effective. Miltonia vexillaria Kaiserin Augusta, with its deep rose-coloured flowers, was very effective. Of Cattleyas there were C. Schröderi in several varieties and C. Mendelii, Lælia purpurata Novelty, and other varieties of L. purpurata were interspersed. The Odontoglossums were a striking feature, and included luteo-purpureum var., crispum Britain's Queen, c. Britain's King, Oncidiums, Dendrobiums, Cypripediums, and Zygopetalums, all represented by good sorts, gave further variety and colour. Silver-gilt Flora medal.

Messrs. Sander and Sons, St. Albans, included some very choice Orchids in their group: for instance, Cattleya intermedia nivea (white, with pink-tinged lip), Lælia purpurata alba, Miltonia bleuana nobilior, Cattleya Schröderi alba var. Mme. Louis de Hemptinne (shown for Gerard de Geest, gardener to M. le Marquis de Wavrin, Belgium), Cypripedium harrisianum albens, Phaius Cooksoniae, P. Phoebe, Lælia-Cattleya Ruby Gem, Miltoniopsis bleuana Sanderi, various Cypripediums, and others. Silver Flora medal.

C. J. Lucas, Esq., Warrnam Court, Horsham, exhibited Odontoglossum Hallii grandiflorum, O. wilckeanum, O. grande, O. andersonianum, and several other fine varieties unnamed. Silver Banksian medal.

J. Bradshaw, Esq., The Grange, Southgate, N. (gardener, Mr. G. G. Whiteledge), showed Brasso-Cattleya digbyana-Schröderi var. Empress of India, Cattleya Empress Frederic var. xanthoglossa, and a very fine form of C. Schröderi called Robin, with a large mass of bright purple in the lip; one of the richest-coloured forms of C. Schröderi we have seen.

NEW ORCHIDS.

Odontoglossum thompsonianum.—This is one of the most remarkable Odontoglossums ever exhibited. It is the result of a cross between O. crispum and O. Edwardii, and partakes of the character of both parents. The flowers, which are the size of a small O. crispum, have the shape of this species, and are deep chocolate-crimson, with the end of each sepal and petal tinged with purple. The lip, which is rather pointed, is also chocolate-crimson, with purple tip. The flowers are produced at the end of a long scape, as in O. Edwardii. The plant shown had seven flowers and buds upon a scape about 4 feet long, and laterals were developing below. A first-class certificate was awarded to this plant. Shown by W. Thompson, Esq., Walton Grange, Stone, Staffs. (gardener, Mr. W. Stevens).

Brasso-Cattleya nivalis.—A very beautiful flower; with white pointed sepals and petals, and broad, open lip, tinged in the centre with primrose yellow. The column and throat are tinged with lilac. From Sir Trevor Lawrence, Bart., Burford (Orchid grower, Mr. W. H. White). First-class certificate.

Cattleya Schröderi var. Robin.—A beautiful variety with pale bluish sepals and petals; the frilled lip has a mass of rich purple in the centre, this extends into the throat, and there is bordered by two masses of yellow. From J. Bradshaw, Esq., The Grange, Southgate, N. (gardener, Mr. G. G. Whiteledge). First-class certificate.

Cattleya Schröderi alba Mme. Louise de Hemptinne.—A very beautiful flower, pure white, except for a mass of orange yellow in the throat. The petals are very large, the lip is frilled, and altogether the form is perfect. Shown by Messrs. Sander for the Marquis de Wavrin, Sommerghen, Belgium (gardener, M. G. de Geest). First-class certificate.

Odontoglossum crispum smeeianum.—This is a large handsome flower with the sepals and petals spotted with light red upon a pale lilac ground tinged with a deeper lilac. Both sepals and petals are broad and well formed. From N. C. Cookson, Esq., Wylam-on-Tyne (gardener, Mr. Chapman). Award of merit.

A botanical certificate was awarded to Miss Willmott, V.M.H., Warley Place, Essex, for Oncidium o'brienianum.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. Joseph Cheal, Edwin Beckett, Alex. Dean, Wm. Fyfe, Henry Parr, William Pope, George Kelf, J. Willard, G. Reynolds, J. Jacques, Owen Thomas, T. Arnold, and S. Mortimer.

Potato The Factor.—This well-known variety was shown by Messrs. Dobbie and Co., Rothesay, and was awarded a first-class certificate. In eighteen trials of Potatoes in different parts of the country, The Factor gave the highest average crop. There is not much doubt that it is the finest and most reliable cropping Potato grown. It is a large kidney-shaped tuber.

NARCISSUS COMMITTEE.

Present: Miss Willmott, the Revs. G. H. Engleheart and S. Eugene Bourne, Charles MacMichael, Charles T. Digby, Arthur R. Goodwin, R. Dean, E. A. Bowles, George S. Titteridge, Wm. Copeland, J. D. Pearson, A. Kingsmill, Robert Sydenham, J. Pope, Walter T. Ware, J. de Graaf, Rudolph Barr, James Walker, and C. H. Curtis.

Barr's silver Daffodil cup, presented by Messrs. Barr and Sons, Covent Garden, for the best collection of Daffodils, was won by E. W. Crosfield, Esq., Little Acton, Wrexham. A. S. Leslie Melville, Esq., Branston, Lincoln, was second, and was awarded a silver Flora medal.

Mr. C. J. van Tubergen, jun., Haarlem, Holland, exhibited several unnamed Narcissi seedlings; among them were some beautiful flowers.

The Narcissi from Messrs. Barr and Sons were a very fine lot. In addition to many vases full of the better-

known sorts, there was an exhibit of new seedlings. These comprised some beautiful flowers, unnamed, especially among the sulphur-coloured trumpets, and we noticed the handsome N. odoros rugulosus maximus, which obtained a first-class certificate at Birmingham last week. Among the named sorts were Alnira, Apricot, Princess Maud, Gloria Mundi, Mme. de Graaff, Nelsoni major, Nelsoni aurantius, and many others. Tulips at either end of the Narcissi group gave brilliant colouring to this exhibit, which was most attractive one. Silver-gilt Banksian medal.

Messrs. R. H. Bath, Limited, Floral Farms, Wisbech, exhibited a choice gathering of Narcissi in many varieties. Gloria Mundi was very bright, and especially good were J. B. M. Camm, Mme. de Graaff, Glory of Leiden, Nelsoni major, John Nelson, Maurice Vilmorin, Nelsoni aurantius, Katherine Spurrell, Mrs. Langtry, and Weardale Perfection. Among the new ones were Snow Queen (sulphur trumpet), a beautiful unnamed seedling, a short trumpet (an improvement on Francesca), a very fine yellow trumpet, Goldfinch and Mina (two new yellow trumpets). The Tulips were very fine, and among them we noted Jenny (rich rose, with white base internally, a beautiful flower, and Golden Queen (the finest of the yellows), Thomas Moore, Proserpine, Greigi, Montrose, Vesuvius (a rich crimson), and others. Silver-gilt Banksian medal.

Messrs. J. R. Pearson and Sons, Chilwell Nurseries, Lowdham, Notts, exhibited a large collection of Narcissi in many beautiful sorts. We might specially mention Seagull, Maggie May, Maurice Vilmorin, Lulworth, and Resolute among the Medio-coronati varieties, while among the Parvi-coronati were Branston, Falstaff, Gold Eye, Cresset, Gipsy Queen, Homer, and others. Of the trumpet sorts Florence Pearson (sulphur perianth and primrose trumpet) was very beautiful, and other fine ones were Weardale Perfection, and Mme. de Graaff. Silver-gilt medal.

Miss Willmott, V.M.H., Warley Place, Great Warley, Essex, exhibited a group of Narcissi in some lovely varieties. Of the trumpets there were Great Warley, Earl Grey (primrose yellow), Ducat (gold), Rev. C. Digby, and Sihon (rich yellow trumpet, cream perianth). The Parvi-coronati section was finely represented by such as Cresset, Firebrand, Oriflamme, Cassandra, Zenith, and Valeria. Of the Medio-coronati were Lucifer, Lucia, Moccoco (with apricot trumpet), and Aladdin. Gold medal.

The Daffodils and Tulips from Messrs. James Veitch and Sons, Limited, Chelsea, attractively arranged amid Maidenhair Fern, made a bright display. Among the former were good flowers of Gloria Mundi, Mme. Plomp, Glory of Leiden, Frank Miles, and others. The Tulips included Greigii, Purple Crown, Pottebakker Yellow, King of the Yellows, Sylvestris, Thomas Moore, Belle Alliance, Chrysolara, and others.

Messrs. Pope and Sons, King's Norton, near Birmingham, showed a collection of Narcissi. King's Norton, the big yellow trumpet, was finely represented, and so were Lady M. Boscawen, Rembrandt, J. B. M. Camm, Weardale Perfection, Mme. de Graaff, Grandee, and other trumpet varieties, as well as the other sections. Silver Banksian medal.

NEW NARCISSI.

Cornelia.—A rich bright yellow trumpet of splendid form, the perianth segments quite rounded. From Messrs. R. H. Bath, Limited, Wisbech. Award of merit.

Marie Hall.—A large Ajax, with a cream-coloured perianth and long straight deep primrose-yellow trumpet. From Messrs. R. H. Bath.

Helen Countess of Radnor.—A very fine sulphur white trumpet. The perianth is of excellent shape, the segments rounded, and the deep sulphur trumpet is long with a wide mouth. From Miss Willmott, V.M.H.

Countess of Stamford.—A beautiful milk-white trumpet of medium size, and of very good shape. From E. M. Crosfield, Esq., Wrexham. Award of merit.

Bunzai.—A large Ajax variety, with spreading cream-coloured perianth and primrose-yellow trumpet, with wide-frilled mouth. From E. M. Crosfield, Esq. Award of merit.

An award of merit was also given to Narcissus William Foster, shown by Miss Katherine Spurrell, Norwich, but we were unable to find it.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. C. T. Drury, George Nicholson, J. W. Barr, R. Wilson Ker, R. C. Notcutt, Charles E. Pearson, C. J. Salter, William Howe, J. Jennings, Charles Dixon, Charles Jefferies, William Cuthbertson, W. P. Thomson, H. J. Cutbush, E. H. Jenkins, W. J. James, George Paul, George Gordon, Charles Blick, R. Hooper Pearson, and Harry Turner.

Messrs. Veitch and Sons, Limited, Chelsea, contributed a miscellaneous exhibit of Cinerarias, hybrid Gerberas, Clerodendron myrmecophilum, with a pyramidal spike of pale orange flowers; blue Hydrangeas; Medinilla magnifica grandiflora, very telling, with drooping racemes of pink flowers supported by pink bracts; Rhododendron Williamsii, white flowers in compact trusses; and the scarlet Kalanchoe in this group was the long-looked-for Meconopsis integrifolia from Western China and Thibet. The huge pale yellow Tulip-like blossoms are borne singly on stout stems 18 inches long, the long, lance-shaped leaves of 1 foot long covered thinly with brownish hairs. The blossoms are as large as a Tulip of the largest size, and apparently remain long in the bud state, requiring sun and warmth to expand them.

Messrs. Cutbush and Son, Highgate, staged a most interesting lot of Primulas and Auriculas, with Lilies and other plants. Nearly all sections of the Primrose family were well represented. Very beautiful, too, were the alpine and show and fancy Auriculas. Lilies and Acers in the background gave a finish to the whole.

THE GARDEN

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HARDY VINES FOR COTTAGES.

WE shall never forget the pleasant impression when first seeing a cottage in Worcestershire a good many years ago. The south and west sides were covered with well-trained Vines, which at the time were bearing a bounteous crop of small bunches of fairly developed, amber-coloured berries. This was our first introduction to the Vine as a hardy fruit grown in the open air in England. We have seen a good many since, but not one showed so conspicuously the result of such successful culture. We were doubtful about the flavour, and on expressing this to the owner (Mr. John Wall, a retired farmer and fruit grower) he very soon relieved our doubts by an invitation to taste a sample. The variety was the Royal Muscadine, and those who enjoy the sweet flavour of this Grape when well grown and properly ripened will not need to be told that the Grapes were delicious.

Before deciding on planting this or any other hardy Vine against the south and west walls of our houses, the question must first be well considered whether the climate of the parts we are living in is sufficiently mild to justify the hope that the Vine will succeed if planted. As stated above, it will succeed well in Worcestershire. This being so, it will do so equally as well in Hereford, Gloucester, Hants, and Dorset, and, indeed, with good culture, in most parts this side of the Trent, and, it need scarcely be added, in all the home counties round London. One great advantage this Vine possesses is the fact that it does not resent so much the atmosphere of towns, as not far from the heart of London good examples of out-of-door Grapes are grown and occasionally exhibited. To those who wish to combine utility with interest and beauty in the beautifying of the walls of their homes, the Vine is much to be commended. Its delicate pale green growth in summer, and the richness of the autumnal colouring of its foliage, place it on a level with the choicest of climbing plants, with the great advantage of a profitable crop. The public, we are afraid, have an idea that it is difficult to grow such Vines successfully. The fact of the matter

is, they are very easily grown, and once a few essential points, which shall be mentioned, are overcome, nothing is simpler.

Now is the best time of the year to plant the Vines. The aspect, as mentioned before, should be south, but the Vines will succeed when planted facing west or south-west. As to soil, this presents no great difficulties. Where the ordinary soil of the garden is of fair quality and depth, and is well drained, this will answer every purpose. If the sub-soil is gravel or sand no further drainage is necessary, but if on clay or marl, or any other close material through which water cannot easily pass, then artificial drainage must be provided. The border should be 3 feet wide, and be trenched 18 inches or 2 feet deep, according to the depth of soil there may be, before the Vines are planted, adding a small quantity of turfy loam and a dressing of lime as the trenching proceeds. The young Vines when procured from the nurseryman will have only one slender stem. In planting the Vine should be turned out of its pot with care, so as not to injure any of its roots. The bottom crocks must be taken away, and the points of the roots round the sides gently raised and liberated before planting. The bole of earth which surrounds the roots must not be broken, but planted whole, and deep enough for the surface of it to be buried in the soil 2 inches when the planting is finished. Vines should be planted in moderately dry weather, and the soil made firm by treading whilst the planting is proceeding. The young Vine will start away freely in this well-disturbed soil, and once it has established itself, say in two or three years, the roots will take care of themselves for the future by extending into the surrounding soil, absorbing therefrom sufficient sustenance without much further trouble or labour to the grower.

As soon as planted the Vine should be well watered and pruned back to within three buds of its base. As soon as the Vine begins to grow these buds will form young shoots. The terminal one should be trained upright, and the two lower ones on either side must be trained horizontally for 18 inches, and then perpendicular, so as to form three upright stems to the Vine, which shape it will retain until it reaches the top of the wall, and afterwards permanently. Every Vine should then have three upright branches, leaving 18 inches of space between

branch and branch, and necessitating the Vines being planted $4\frac{1}{2}$ feet apart. By the end of the summer the shoots will have made a fair growth (but not strong the first year).

(To be continued.)

DEAN HOLE MEMORIAL FUND.

A SHORT time ago an appeal was made by the National Rose Society to perpetuate the memory of its late president, the Dean of Rochester, by some fitting memorial. It is now proposed to enlarge the scope of the memorial, and with this intention a second appeal is about to be issued, with the object of raising a sum of £500. One paragraph in the appeal is as follows: "To perpetuate his memory is a duty devolving on all rosarians. That duty the National Rose Society is willing to undertake, provided assistance be forthcoming in response to this appeal. The extended scheme which is now proposed is an enlargement of the original idea. The society desires to appeal to all lovers of the Rose, of the Dean, his books, and his work for help to raise the sum of at least *Five Hundred Pounds* (£500). The sum raised it is proposed to invest in the names of trustees appointed by the National Rose Society, who, from the interest thereof, shall make awards of merit, as the occasion may arise, to such person who by cultural skill, research, literary work, or any other way other than by exhibits (save in exceptional circumstances) shall, in the opinion of the trustees, confirmed by the National Rose Society, have done something for the advancement of the Rose worthy of special recognition. The awards will take the form of a grant of money, or a medal, and will be made irrespective of nationality. In other words, the application of the fund will not be confined to members of the National Rose Society—it will be international."

The list is headed by a subscription of ten guineas from the president, Mr. Charles E. Shea, and we hope that the required sum will be soon forthcoming. This will mean increased work for the excellent secretary, Mr. Edward Mawley, but all who are aware of his labour of love in the interests of the society know how willingly this will be undertaken. We mention this as, owing to the resignation of Mr. Haywood, the treasurer for many years, Mr. Mawley is happy in having as his new co-worker a treasurer that will carry on the same disinterested work as his predecessor.

The new treasurer is Mr. H. E. Molyneux, who is not only a keen grower and judge of Roses, but devoted to the National Rose Society. Few amateurs have given their

leisure time in a busy life to the society so willingly as Mr. Molyneux, and the committee is to be congratulated on their wise choice for so important a post.

PRIZES FOR GARDENERS. MAY.

OPEN TO BOTH PROFESSIONAL AND
AMATEUR GARDENERS.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
will be given for the best answers to the questions
published below.

- I.—Name the best twelve distinct Hybrid Tea or Hybrid Perpetual Roses for garden decoration, taking into consideration freedom and length of flowering, and hardness of constitution. Two distinct Roses of each of the six following colours must be selected: White, flesh, yellow or cream, pink, cherry or light red, and scarlet or dark red. Exclude new Roses of 1904-5.
- II.—A hedge of Roses is required to form a protection against the north-east wind in a very exposed position. Name the Rose you would select for this purpose, and state method of planting, pruning for first year, and number of plants required to the 10-feet run; when fully grown the hedge should be about 3 feet 6 inches high. The protective quality of the hedge will be the first consideration; freedom of flower and decorative quality the second.
- III.—Give the names of six Roses, rapid climbers, best adapted for climbing into old trees, and state method of planting and pruning for first year.
- IV.—A sunken lawn, roughly 1,000 square feet in size, well protected from winds and midday sun, and in a generally favourable position, subsoil clayey loam, is to be converted into a Rose garden. Sketch out design of not more than twelve beds and not less than eight, leaving four grass paths—north, south, east, and west—and number beds 1, 2, 3, &c.
- V.—Name dwarf Tea Roses for said beds, one variety to each bed. Consideration must be given to contrast in colour and habit of growth of varieties; freedom of flower essential, and no tender varieties should be used.
- VI.—A similar list of Hybrid Teas and Hybrid Perpetuals, with similar conditions as the last query.
- VII.—A pergola leads from kitchen garden to above Rose garden, 80 feet long, with arches at every 8 feet. Ten distinct Roses are required (two plants to each arch). Give a list of the varieties you suggest as best for the purpose. The summer-flowering Roses may be used sparingly if thought desirable. General effect of whole when in flower must be considered.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

May 9.—Royal Horticultural Society's Meeting; Horticultural Club: Mr. E. H. Wilson on "Journeys in China."

May 11.—Annual Dinner of the Royal Gardeners' Orphan Fund, Hotel Cecil, 7 p.m.

May 17.—Royal Botanic Society's Show, Regent's Park.

May 23.—Royal Horticultural Society's Meeting (Tulip Show).

A coloured plate of *Phaius tuberculosus* will be given with THE GARDEN next week.

Japanese gardening.—Among the new Fellows elected at the general meeting of the Royal Horticultural Society held on the 24th ult., were the Countess of Halsbury, the Hon. Mrs. Howard, Colonel John Baskeville, Lieutenant L. Hordern, R.N., Major Hildebrand,



MR. H. E. MOLYNEUX.

(The new honorary treasurer of the National Rose Society.)

R.E., Captain R. Feilden, Mrs. Assheton Smith, and Mme. Bergman Osterberg. The local horticultural societies of Acton, Charlton, Chesterfield, and Egham were affiliated to the Royal Horticultural Society. Two papers on the application of Japanese method to European horticulture had been received, but owing to want of time only that by Mr. James Hudson, V.M.H., on "The Making of Japanese Gardens in England," was read. This was profusely illustrated by a fine series of lantern slides by Mr. Gregory of Croydon, and of enlarged photographs of the garden taken in various stages of growth. These pictures not only showed the formation of one of the most beautiful spots near London, but also illustrated both the rapidity of growth even during the first season, and the semi-tropical appearance thus created. Mr. Hudson pointed out that in the preparation of any site for a garden, the soil should be of the best description, and be well tilled beforehand. He described the way in which the Japanese garden at Gunnersbury House, the residence of Mr. Leopold de Rothschild, had been made under his direction during

the past four years, and further explained that his own object had been to provide a garden after the Japanese style that would be at its best in August, September, and October, when the family were in residence, and consequently spring flowers had not been available. He had not considered it necessary to adhere to the style of garden so often seen illustrated as representing Japanese gardens, and from photographs he had seen he believed this did not represent all the phases of Japanese gardens. From the results achieved at Gunnersbury it was evident that very many Japanese plants might become popular in this country. Among the principal of the many points which were most clearly and forcibly brought out by the lecturer, were that shelter should be provided, that a liberal supply of water should be secured, and that shade-loving plants, as well as those loving sunshine, should be provided for. The other paper, by M. Albert Maumené of Paris, on "Japanese Dwarf Trees and their Production and Treatment," was taken as read, and will, with that of Mr. Hudson's, be published in the Journal of the Royal Horticultural Society. In this paper M. Maumené describes the various forms of these trees in Japan, the different methods of raising and of training them, the varieties of plants most suitable for dwarfing, and their treatment in this country. The main points brought out were the unwearied patience and perseverance of the Japanese in producing these plants, and that the dwarfing is principally due to limiting the space available for the roots, and also reducing their number, and in providing a minimum supply of water and nourishment to maintain the life of the tree, while the twisting and curving also retarded the sap. The trees might be roughly classed as those which represent miniature reproductions of their natural appearances, and those which are twisted, curved and shaped to a certain preconceived idea. The next meeting and exhibition of the Royal Horticultural Society will be held at Vincent Square on Tuesday next, the 9th inst., when lectures will be given by Mr. N. Hayashi on "Japanese Horticulture," and by Mr. E. Farrer on "Japanese Plants and Gardens," which he will illustrate by lantern slides, and it is hoped that on that occasion there will be a fine exhibition of Japanese trees and plants, which will then be at their best in this country. A fortnight later (on the 23rd inst.) the National Tulip Society will hold their annual show for the southern division in connexion with the society's fortnightly meeting and exhibition, and Mr. E. M. Holmes, F.L.S., will give a lecture on "Medicinal Plants, Old and New," illustrated with lantern slides. The great spring show of the society will be held in the gardens of the Inner Temple on the 30th and 31st inst., and June 1.

Hybrid and other Orchids at Messrs. J. Veitch and Sons' Nursery, Chelsea.—Some beautiful gains to the family were noted at this nursery recently, namely, *Cattleya Mossiae* × *gigas*, the lip crumpled or wavy at the edges, large in comparison with the sepals and petals and of a grand purple colour; *Lælia digbyana* × *L. purpurata*, a flower to which L. d. had imparted its singular-looking lip with its long fringes, whilst the deep purple tint of the latter was retained; *Cattleya Onone* = *C. Mossiae* and *C. labiata*, the sepals and petals like those of ordinary *C. Mossiae*, but the lip fringed and of a fine purple tint; *Lælio-Cattleya* = *C. Schrödera* and *L. flava*, a charming lemon-coloured self. Numerous species and varieties of Orchids were noted in the little show houses, of which a few may be of interest to the reader: *Oncidium lowianum* and *O. l. grandiflorum* in many examples of moderate sizes, and capitably bloomed; *O. concolor*, than which there is no more desirable yellow-flowered species; *O. sarcodes*, several plants with numerous flower spikes; many very choice *Odontoglossum crispum*, *O. Edwardii*, *Lælio-Cattleya Highburyensis*, *Masdevallias* in quantity, &c.—F. M.

Weather Notes.—Mr. James Whitton, the superintendent of the Glasgow Parks and Curator of the Botanic Gardens, has published his "Meteorological Notes and Remarks" for 1904, together with some observations upon the general effects of the weather during that period upon vegetation. It appears that the rainfall of 1904 was 34.87 inches, slightly below the average, which, broadly speaking, is about 36 inches. March was the driest month with only 1.43 inches, though June nearly approached it with 1.54 inches. The number of days on which no rain was registered was 163, while in 1903 the number was 138. Mr. Whitton remarks that growth began early, and, escaping spring frosts, was fairly continuous, though slow at first with the too dry atmosphere in May and June. The hay crop harvested better than was anticipated. Cereals were harvested under excellent conditions. Root crops improved greatly after midsummer. Tree and bush fruit crops were irregular, and below the average. Deciduous trees and shrubs on the whole were good. Mr. Whitton concludes that the season of 1904 may be considered to have been a good one for vegetation.

A lost Orchid rediscovered.—Every horticulturist in general and orchidist in particular, all the world over, will be interested to learn that the "lost Orchid," *Cypripedium fairrieanum*, has been rediscovered. The discoverer is a European, an Englishman; and he, with Mr. S. P. Chatterji, the well-known florist and nurseryman of Calcutta, have the secret of its natural habitat between them. They have a fine stock of plants, and will doubtless make the most of them in due course. They will now claim the reward of £2,000, says *Indian Gardening*, offered by a certain London firm of plant merchants, to any one who would rediscover the "lost Orchid." The locality where this Orchid was found remains a profound secret for the present, but suffice it to say that it was *not* found in the Garo Hills, its supposed natural habitat. There is no doubt at all as to the identity of the plant, as it has been submitted to Dr. Prain, superintendent of the Royal Botanic Gardens, Calcutta. This is probably the most important and sensational announcement that the horticultural and botanical world has received for many years. The plant was lost to the world in 1876, and may be said to be practically extinct in Europe at the present time.

Chelsea Physic Garden.—The first report of the committee of management of this garden has been published. Some interesting particulars about the history of this garden are given. The site was secured in 1673 by the Apothecaries' Society at an annual rent of £5, on a lease of sixty-one years, from Mr. Charles Cheyne. In 1697 the lease was extended for a further sixty years, but in 1712 the freehold of the garden changed hands, Dr. Hans Sloane having purchased the Manor of Chelsea from Lord Cheyne. In 1722 Sir Hans Sloane conveyed the garden to the Apothecaries' Society, who in 1722 appointed Mr. Philip Miller as head gardener. In 1732 the society spent nearly £2,000 on glass houses, and in 1733 erected as a monument of gratitude to Sir Hans Sloane the statue by Rysbrach which now stands in the garden. At the commencement of the latter half of the nineteenth century the garden was in full work; in 1862 it was largely used by medical students. Some few years ago the trustees of the London Parochial Charities were created the trustees of the garden, and were charged with the care of the property and funds, and a committee was appointed to superintend the management of the garden. Since 1899, when the committee first sat, £6,000 has been spent in new buildings and repairs and alterations. A lecture room, with laboratory underneath, and a residence for the curator (Mr. W. Hales), at a cost of £3,350, and for new glass houses and pits, at a cost of £2,040, have been built. The buildings were opened by

Earl Cadogan in 1902. During 1904, 1,130 people visited the garden, most of them being teachers and students. The laboratory is chiefly used by students of the Royal College of Science. Specimens for teaching and examinations are supplied throughout the year to the University of London, Royal College of Science, and other institutions. The committee express their highest approbation of the work of Mr. Hales, the curator.

The "coreless" Apple.—This interesting fruit was shown by Messrs. R. Veitch and Sons of Exeter before the fruit committee at a recent meeting. The fruits were rather small, had open sunken eyes, and slightly coloured skin; when cut into halves in each case the core was found, but quite closed up, soft and seedless. Still it was evident its title as "coreless" is a misnomer. The quality of the flesh was very indifferent. The assumption is that a coreless variety would be impervious to the attacks of the codlin moth, but the variety in question has flowers necessarily, and the open eye indicated that the blooms did not materially differ from those of any other Apple. As a seedless variety is incapable of being improved by cross-fertilisation, it is evident that no development may be looked for unless it should be found practicable some day to secure a seedless sport from such a first-class Apple as Cox's Orange Pippin.—A. D.

THE DANCING WIND.

Now all the world is dancing,

For the merry wind doth play

A tune of spring on a golden string

As he goes upon his way.

The great trees dance together,

And bend, as the wind sweeps by,

To kiss his feet, where the Violets sweet

Peep out at the windy sky.

And in the spreading meadows

The ranks of the fresh green grass

Dance to and fro as the wind doth blow,

And laugh to hear him pass.

The white clouds, too, are dancing

Across the wild spring sky,

But he drives them home, when they fain would roam,

To the west where the sun will die.

The Daffodils and Lilies

Beside the garden wall

Dance to his song the whole day long,

Till evening shadows fall.

And when the world is sleeping,

And stars their light have shown,

The wild wind sings to his golden strings

And dances all alone.

SYDNEY HESSELRIGGE.

Propagating English Walnuts.

There is no better way of increasing the English Walnut than by sowing the nuts. Kept moist from the time of collecting them until spring, they are fairly sure to grow, and they soon make a good growth. In damp deep soil the seedlings make but a long tap root, but it is claimed, and looks reasonable, that in light soil there is much less tap root and more fibrous ones, and this is said to be true of all nut tree seedlings. It is worth trying, as the lack of fibres is what makes the transplanting of these seedlings so difficult. The thin shelled and other varietal forms of the English Walnut cannot be relied on to come quite true when grown from nuts, and grafting has to be done to increase them. The common English is used for stocks, although it is claimed that the black Walnut makes a good stock for them. The grafting is done by scraping away the soil from around the stocks and grafting them well into the crown of the plants. This would be a good time to make a trial of it, as with scions cut now and held back a week or two, it would find the sap rising in the stocks.—*The Florists' Exchange* (New York).

Syon House Prolific Potato.—The tubers of this Potato, shown at a recent meeting

of the Royal Horticultural Society by Mr. J. B. Joel, Potter's Bar, were so fine that some thought they could hardly be the same. As Mr. Joel had his stock originally from Syon, and has grown it consecutively for eight years, the sample was, indeed, a remarkable one. Various members of the fruit committee spoke in high praise of the variety, and having regard to its good reputation, and the fact that it had already received at Chiswick an award of merit, a first-class certificate, now an unusual honour for a Potato, was unanimously awarded. This award is thus made only after the variety has been well proved. It is a capital garden variety.—A. D.

Tender shrubs.—Since reading the various articles on *Garrya elliptica*, I should like to draw the attention of the readers of THE GARDEN to the fact that in this neighbourhood there are to be found some exceedingly fine specimens of *Buddleia globosa*. We have here a large plant of it, and when in flower it is a picture. I have also seen one recently in the gardens of Mr. Kemp Welsh at Sopley Park, some three or four miles away, which has attained an enormous size, having been allowed to grow freely. *Buddleia Colvillei* is a much better sort to grow, inasmuch as it is hardier than *globosa*, and evergreen. The foliage is silvery grey, and the flowers large and rose coloured. Planted against a south-west wall it should thrive well in sheltered districts if slight protection is given in the winter. *Erica arborea* is now flowering in this neighbourhood, and is a charming plant. This is also averse to cold, and only succeeds in warm situations, where it forms a large bush. The sweet fragrance of the flowers can be detected many yards away. It requires peaty soil, and a rather moist corner.—G. BURROWS, *Avon Castle Gardens, Ringwood, Hants.*

Botanical Society of Edinburgh.

The monthly meeting was held on the 13th ult., Professor Balfour presiding. The Glenshee Hepaticæ were dealt with in a paper by Mr. W. Young, while Mr. G. West exhibited many fine specimens in illustration of his communication on the Aquatic Flora of the Loch Ness district. Mr. W. B. Boyd showed *Andromeda hypnoides* in fine flower, *Saxifraga luteo-viridis*, and a remarkable green double Snowdrop. A good example of one of Mr. P. Murray Thomson's seedling double *Polyanthuses* was brought by Mr. Alex. Cowan from his garden at Penicuik. From Mr. Whytock, Dalkeith Palace Gardens, came an extensive series of well-grown spring flowers, also Apples to illustrate methods of keeping. Many *Primulas* and *Saxifragas*, &c., were sent from the Royal Botanic Garden, Edinburgh, and observations on these were made by Mr. Harrow. Several rare Mosses were also exhibited.

Blairgowrie and Rattray Horticultural Society.—A summary of the horticultural lectures to be delivered under the auspices of the Blairgowrie School Board in 1905 have been published. The lectures included are "Roses for Pleasure and Profit," by Mr. James Simpson, Cambustay Nurseries, Broughty Ferry; "Tomato Growing for Profit," by Mr. G. R. Beale, Manor Farm, Blairgowrie; "Prime Factors in Successful Fruit Culture," by Mr. D. Storrie, Glencarse Nurseries, Perth; "Vegetables: A Profitable Crop," by Mr. John Laing, The Gardens, Craighall. This society exists for the encouragement of gardening in the district. All interested directly or indirectly are invited to become members and assist in the work. The secretary is Mr. D. G. Monair, Blairgowrie.

National Chrysanthemum Society.—The annual report states that this society still maintains a foremost position among the special societies having for their object the culture of some particular flower. The Chrysanthemum, especially as represented by the large exhibition Japanese varieties, continues as popular as ever, while the growth in the commercial

value of the flower as a market and decorative subject has been highly satisfactory. The financial condition of the society is very good. Arrangements have been made with the Crystal Palace Company for three exhibitions to take place at Sydenham in the present year. The dates are: October 4 and 5, November 1, 2, and 3, and December 6 and 7. The experiment of holding an exhibition of market Chrysanthemums at Essex Hall, on December 14, proved a distinct and gratifying success, and excellent collections were staged, while the novelty of the exhibition attracted a good deal of public interest.

The Nurserymen, Market Gardeners', and General Hailstorm Insurance Corporation, Limited.—

The tenth annual general meeting of this company was held at the registered offices, 41 and 42, King Street, Covent Garden, W.C., on Friday, the 7th ult., when Mr. Harry J. Veitch presided. The progress of the company is most marked, the income for the year having increased to £2,964 8s. 1d. The assets of the company now amount to £20 229 15s. 4d., and the reserve fund stands at £9,000. The usual dividend of 5 per cent. and bonus of 2½ per cent. was agreed to. It was noted that the company still had the same chairman, directors, and secretary as at its formation.

Hanley Horticultural Fete will be held on Wednesday and Thursday, July 5 and 6. A very good schedule of prizes has been arranged, plants, Roses, cut flowers, fruit, and vegetables being well provided for. The secretary is Mr. William Poulson, Town Hall, Hanley.

TREES AND SHRUBS.

RHODODENDRON CILIATUM.

TO see this Rhododendron at its best in this country one has to visit the Cornish gardens in March or early April. It is doubtful if it be finer even on its native mountains in Sikkim than it is in Cornwall. While the books give its height as 2 feet to 4 feet in its native state, it

certainly grows at least 6 feet high in this country. It is said to inhabit moist rocky places on the Sikkim Himalaya at altitudes of 9,000 feet to 10,000 feet. Of the species from that region it is one of the hardiest. In the London district it does not get injured by frost, but it grows slowly. It sets its flower-buds in great abundance, and, given suitable weather in early April, makes one of the most beautiful of outdoor shrubs at that season. It must be said, however, that an untoward frost will destroy much of its beauty.

Among Himalayan Rhododendrons it is interesting historically as the first of the Sikkim species introduced by Sir J. Hooker that flowered in Britain. Seeds were sent to Kew in 1850, and plants flowered in March, 1852. In the bud state the flowers are of a beautiful rosy red; when they open they are pale pink; and as they become older get nearly white. Each flower is about 2½ inches across, the corolla lobes spreading open. The plant is most beautiful when half the flowers are open, the other half still in bud. The name "ciliatum" refers to the bristly hairs that fringe the leaf-margins; the young shoots also are bristly.

Hybridisers have made some use of this species. Of hardy varieties *præcox* and *Early Gem* are the best known of its progeny, but there are also several good greenhouse varieties that have been derived from it. *R. ciliatum* itself makes a very charming display as a greenhouse plant, as may be seen by a group in the Himalayan house at Kew, where it receives no artificial heat, but where, of course, its flowers are free from danger of injury by frost. Still, I do not think that under glass the flowers or flower-buds are ever so richly tinged with rose as they are in the open.

If grown in the open air a sheltered nook should be chosen for it, and the soil should be sandy peat. A position with a western exposure only is best, so that the plants may

be shielded from the early morning sun that so frequently follows a frosty night in spring, and often injures flower-buds that would escape if they were allowed to thaw in the shade.

W. J. BEAN.

NOTES FROM A SUSSEX HEATH GARDEN.

Few things are more attractive during the whole year than a collection of Heaths. To my mind they look sadly out of place when planted as edgings to trim beds, &c. Here we have them planted in groups of varying size and shape over a series of undulations, which provide some shelter for the tender varieties on their southern side, and cool moist positions for *E. ciliaris* and others on the north. Grassy paths of a good width, whose edges are covered by the encroaching Heath, afford a means of approach. It is very rare indeed to find this part of the garden without some plant in bloom. With the advent of December the lingering flowers on the *Menziesias*, *Erica vagans*, and *E. ciliaris* faded away, but the dark green masses of that earliest of Heaths, *E. mediterranea hybrida*, had already become studded with light green buds, which gradually developed a light and then a deeper tinge of lilac, until a few warm days caused them to open fully and display their chocolate-coloured anthers. A mass of the Winter Heath, *E. carnea*, planted on a southern slope, commenced to flower on New Year's Day, and is only now on the wane. *Daphne Mezereum*, although it cannot claim relationship, associates well with these Heaths. Many flowers are at their best when half open. *E. lusitanica* or *codonodes* is one of these; the bright green plummy growths, covered with pearly white and pink bells, make a beautiful contrast.

Erica arborea is less beautiful, but hardier—apparently because it completes its growth earlier—and its myriads of white bells are produced later, but more freely. We have it planted on the summit of some steep banks to shelter *E. australis*, which was planted on the sunny side some two years ago. These have made good progress, adding 2 feet to their stature in that time. A few branches of evergreens have been

placed amongst them each winter by way of protection, but although the immature tips have been exposed they have never been injured by frost. Last spring the flowers were of a bright rosy pink, but this season, although the plants are stronger and quite healthy, the flowers are of a much paler shade, scarcely deeper than those of *E. mediterranea hybrida*.

The neat bushes of *Pieris* (*Andromeda*) *japonica*, whose glossy foliage and long pendulous clusters of creamy flowers have formed a background for the rather naked mauve-tinted *Rhodora canadensis*, suffered severely from frost on April 7, the reddish-coloured tips of the new growth being destroyed at the same time as the flowers. *Pieris floribunda* and *P. formosa* are almost uninjured, the growth on the latter having hardly commenced. The native *Andromeda polifolia*, though but little grown, is quite a gem. It is a pity some hybridist does not combine the delicate pink of its blossoms with the freer and more showy *Pieris*.

Erica hibernica and *E. h. glauca* are now in flower, their rather dull, greyish flowers being rendered conspicuous by the dark anthers. *E. mediterranea*, flowering from the axils of the leaves in the same way, but later, and of a more rosy tint,



RHODODENDRON CILIATUM IN THE GARDEN OF MR. CRISP, FRIAR'S PARK, HENLEY.

is yet in bud. This variety is sometimes rather difficult to obtain, and is frequently confounded with *E. australis*, but is easily distinguished by its axillary flowers, those of the latter being larger, more rosy, and borne in terminal clusters.

The slow-growing *Bryanthus empetrifolius* is covered with its rather large pink buds. Our first planting of this was made on a flat, low-lying piece of ground, and although it flowers well it makes but little growth. The last has been made on higher ground where the water can drain away, and the plants certainly have a healthier look.

Erica aurea and *E. cuprea* have added considerably to the general effect, on account of the golden and coppery tints of their foliage; this is even more noticeable when they are placed near the bright green *E. stricta*. J. COMBER.

The Gardens, Nymans, Crawley.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

NON-BURSTING CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have been much interested in reading the letter from Mr. Hemsley in your issue of the 8th ult. on "Non-bursting Carnations." The object appears to be to show that blooms from lateral shoots are less liable to burst than those from the main stem. Mr. Hemsley speaks of thirteen perfect blooms from lateral shoots of one plant, but, further, he states that, with regard to border varieties, in most instances to stop a main shoot means to lose a season's flowering. Evidently much depends on the "in most instances." I should like to know which border varieties may be stopped, and how the quantity and quality of bloom will be affected. Another point, Mr. Hemsley, speaking of yellow varieties, says: "I have found *Germania* do much better when grown on a second year. For pot work only two year old plants have ever been satisfactory." Does the latter sentence apply to *Germania* only, to yellows in general, or to other classes also? I have always been told that it is better to get young plants each season, so I have thrown away my last year's stock.

Hessele.

E. C. ASHMORE.

[The great difference between these winter-flowering and border Carnations is that while in the winter varieties the side shoots follow on in quick succession and flower in a month or so after the main stems have finished, in border varieties the main shoots only flower. All the side shoots, which are produced from the base, fail to throw up flower-stems until the following season. Take the old *Crimson Clove*, which used to be grown in pots for market, even when brought on early under glass only the main stems produced blooms. *Gloire de Nancy*, the white *Clove*, *Mary Morris* (pink), and *Germania* also failed to break away from the true habit of the border varieties. Any of those named would fail to give flowers the same season if the main stems were accidentally broken off. Some of the border varieties may throw up a few lateral shoots, especially those that were layered early the previous season. In regard to other yellow varieties, I may say that I have found *Miss Audrey Campbell* and *Cecilia* flower well from one year old plants, but for general pot culture the two year old plants would produce much more bloom. Of the border sorts it is now only the yellows that it is necessary to grow as pot plants, as we have such fine varieties in all other colours.—A. HEMSLEY.]

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It would seem an anomaly to say that two opposite causes will produce the same effect, and contrary to Mr. Hemsley's experience, related

in his letter to THE GARDEN of the 8th ult., I have never noticed among my Carnations that strong growth, unless followed by a sudden check, has caused non-bursting Carnations to split their calyx. I rather suspect that Mr. Hemsley and I are at cross-purposes. I grow practically all my plants in the open, where the strong growth above ground is balanced by strong root-growth below; whereas, if Mr. Hemsley's plants are in pots, and they make strong growth and fill the pots with roots just before the blooms open, it is quite possible that when the roots have reached the limit of space available a check occurs, which causes the blooms to burst, although apparently the plants are in vigorous growth. When selecting the few plants which I grow under glass for the purpose of seed I always pick out the smallest, and have even struck cuttings specially for this purpose, so that they may not out-grow the pot space before they flower. I can confirm Mr. Hemsley's experience of plants with the terminal blooms on the main stem bursting and the subsequent side blooms coming perfect. I have had several like this. No amount of careful cultural treatment will, however, remedy this defect, and such plants should not, in my opinion, be encouraged unless they possess some very exceptional merit to counterbalance the defect.

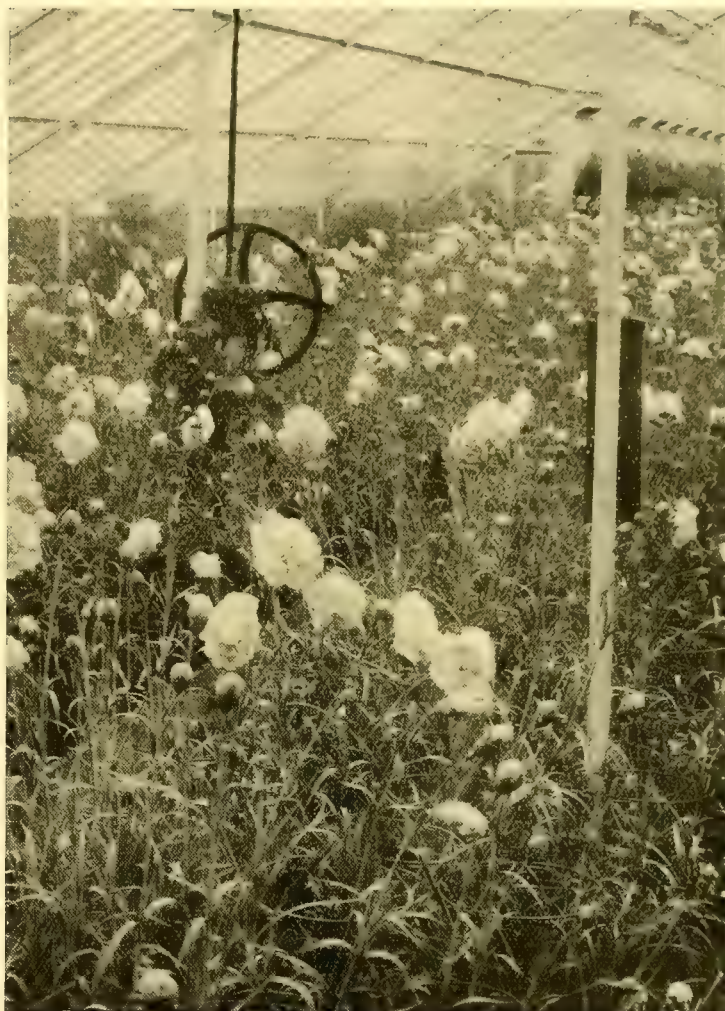
I cannot agree with Mr. Hemsley when he says that blooms which never burst are too thin to be of any market value. I am glad to say that I have several non-bursting varieties which have proved themselves to possess a very substantial market value, and the flowers of these are not by any means thin. I have not myself grown *Countess of Paris* under glass, but I have seen it so grown, and do not consider it suitable for such culture; it is essentially a border variety, and in my opinion a good one. It is not surprising to hear that the paper collars used in exhibiting Carnations afforded some amusement to Mr. Hemsley's American friend. Does it not seem a pity that we should still continue to make ourselves ridiculous by allowing such absurdities.

W. A. WATTS.

THE BANKSIAN ROSE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—With reference to the paragraph on *Banksian Roses* (page 228, April 15) I have had a *Banksian yellow Rose* on a wire arch in a windy position for some years. Last year it



A CARNATION HOUSE IN AMERICA.

bloomed very well, but some years the east wind cuts it too severely just before blooming. We are 700 feet above sea level. SUBSCRIBER.

CARNATIONS IN WINTER.

(A LETTER FROM AMERICA.)

[TO THE EDITOR OF "THE GARDEN."]

SIR,—What a delightful pleasure it is at this stern season of winter to visit a modern Carnation house or Rose house where the most approved methods are employed. No true lover of plants can pass through these fragrant aisles of beauty without a thrill of admiration that is akin to adoration for these queenly members of the floral realm. Though the visitor belongs to that indifferent class which admires the flower, but sees little beauty in the plant and takes no interest in its growth and vigour, still there is a world of beauty and enjoyment for him in these brilliant houses of glass. And then that abnormal creature which we are half inclined to think must have descended from something outside of the original garden, the man who sees no beauty in either the flower or plant—is there not something in these lovely houses of bloom that may awaken some dormant sense in his cold interior? The warm, moist earth and the green vigorous foliage pressing outward and forward at every point into new life, new growth, and more brilliant promise—in all this æsthetic combination of loveliness is there nothing which appeals to him?

A recent visit to a group of such houses in this city so impressed me by their model construction

and their very successful operation that I asked for a few interior photographs of some of the benches, showing the exceptional vigour of the plants and the abundant bloom, and giving some idea of the improved methods used to secure such happy results. These pictures are now reproduced for THE GARDEN readers in connexion with this communication. They are not given with any special claim to superiority over the cultural methods in use among English gardeners. Compared to these we in America are mere beginners in the art of gardening, eager to learn, and we read such journals as THE GARDEN with absorbing interest; but I thought it might interest some of your readers to see how Carnations and Roses are most successfully produced for market by a commercial firm here which has made a careful study of these plants for years past, and now produces such perfect flowers in great abundance. It may also afford opportunity for comparison with methods and results in your own winter gardens.

The brothers George and David Burgevin are the proprietors and managers of this extensive conservatory plant from which these photographs are taken. Both were practically born under glass and reared in the greenhouse, and they have been trained in every branch of the art of plant growth by their father, Mr. Valentin Burgevin, a native of Mainz, Germany, though of French

Thinking that an outline of the methods of culture in use here may be of interest to your readers, I give the following points:

The Carnation cuttings are taken in the month of January, side shoots from blooming stalks being used. These cuttings are placed in sharp, clean sand over bottom-heat, with a temperature of 55°. They root in about three weeks, and are then placed in 2½-inch pots and afterwards transplanted into 3-inch pots, in which they are grown in a temperature of from 48° to 50° until the middle of April, when they are planted out into a pasture field in good farm loam. The plants are there cultivated and kept clean during the summer until August; then they are carefully planted into the benches where they are to bloom. This bench soil is 5½ inches deep, and consists of two parts well rotted turf and one part thoroughly rotted stable manure, well mixed together. They are freely watered and frequently syringed until thoroughly started. They are planted 10 inches apart each way, and the temperature ranges from 52° to 55°. As the blooming stalks appear, only the terminal bud is allowed to remain, all others are carefully removed.

No further fertiliser is used until the middle of February, when a slight top-dressing of pulverised sheep manure and wood ashes, in equal parts, well mixed, is given. This is repeated about April 1, when about an inch of fresh soil

The most troublesome Carnation disease is the stem-rot, for which no remedy is attempted, as the nature and cause of the malady is not well understood. The plants affected are thrown out on sight and replaced with others. There are about 45,000 square feet of glass in this conservatory plant, and the hot water system of heating is employed.

Kingston, New York.

F. HENDRICKS.

MICHAELMAS DAISIES AS POT PLANTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your correspondent Mr. H. Wilson, jun., calls attention to the adaptability of these delightful late autumn blooming plants for conservatory and house decoration. There is not the slightest doubt as to this, and considering the ease with which they can be propagated and grown into suitable specimens I feel sure there is a great future for them as such. As Mr. Wilson mentioned my name in conjunction with Mr. Molyneux as to suitable varieties, I have much pleasure in appending a list of varieties known to me as being excellent for the purpose: King Edward VII., rich mauve; Golden Spray, white, golden centre; Coombe-Fishacre, Brightness, rich pink; cordifolius Ideal, mauve, drooping; c. Profusus, pale mauve, drooping; ericoides Delight, white, changing to pink; e. Enchantress, bluish, drooping; e. Freedom, white; e. Hon. Edith Gibbs, pale blue, drooping; e. Osprey, soft pink; e. Esther, delicate pink; e. Hon. Vicary Gibbs, bright pink; White Diana, drooping; amellus Perry's Favourite, rich pink; a. Riverslea, rich blue; turbinellus, pale blue. E. B.

NARCISSUS PALLIDUS PRÆCOX AND N. VARIIFORMIS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I send you a photograph of these Narcissi. They flower three weeks before any of the others. R. DIMSDALE.

Ravenshill, Eastleach, Lecklade.

DISEASED MUSHROOMS—THE EVIL OF BAD SPAWN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was glad to read the notes in your issue of the 15th ult. about the disease which has apparently been much in evidence in Mushroom beds this winter. I have found it most troublesome, and it has entailed a great loss in produce. At first I thought it was a fungus that might be in the soil, but I have since used soil got from two different places, and I am quite convinced that the fungus, or disease as you term it, must be in the cakes of spawn. I have had it more or less on all my beds. It is a serious loss to the grower, and if this fungus cannot be checked many will give up growing Mushrooms, as they entail heavy expenditure in manure and labour. I feel fully convinced that the mischief is in manufacturers not being careful enough in selecting the virgin spawn with which they inoculate the cakes. It is no easy matter to detect false mycelium, and in the height of the season of making oftentimes there is great difficulty in obtaining the real virgin spawn. Then, again, during the past two seasons of spawn-making the season has been very wet, spawn or mycelium has been difficult to obtain, and no doubt that is one reason why Mushrooms generally have been much lighter in growth. As you say, it is an old complaint, but I must say that this season, so far as I am concerned, has been the worst I have experienced. At one time this winter I began to think that my hand had lost its cunning so far as growing Mushrooms is concerned, but I have quite made up my mind that poorness of spawn is the reason, for since then two or three beds have done fairly well. H. J.



NARCISSUS PALLIDUS PRÆCOX AND N. VARIIFORMIS.

ancestry, who established the business here many years ago, and conducted it with signal success all through his life. He was a typical gardener with an inborn love of plants and flowers. His sons have greatly enlarged the entire plant since their father's death, and introduced improved methods.

While there is nothing especially new or novel about the construction of these houses, their skilful and careful management and neat and methodical appearance are everywhere apparent. Nothing is allowed to go wrong, and there are no "loose ends." All the numerous houses are freely opened to visitors, as a large retail trade is done. Every bench and aisle is kept scrupulously clean and tidy; plants and branches are carefully trained and tied to durable wire supports of suitable form, doing away with all obtrusive and unsightly stakes or poles. There is no decaying foliage or wilting blooms to be seen, nor any trace of disease in these trim benches. Any plant showing indications of disease is promptly thrown out and replaced with a new one, of which there is always a reserve supply. There is thus a pervading air of thrift and orderly system not often seen in the average commercial greenhouse. No one can look over these fine houses without realising that the plants are just enjoying themselves in a revelry of vigour and bloom, and doing their level best to augment the cash receipts of the gardener.

is mixed with the other fertilising material. Occasionally a little fine bone-meal is used. Under this treatment the plants produce about seventeen perfect flowers each on an average during the season. These flowers measure from 3 inches to 4 inches in diameter, often reaching 4½ inches in some varieties. Of course all these plants are thrown out after one season's bloom. The leading sorts in use here are the Enchantress, Prosperity, Mrs. Thomas W. Lawson, the famous 30,000dol. Pink, the Marquise, White Lawson, and the Estelle.

The Rose plants are grown in a similar manner, except that they are kept in pots after rooting, and not planted outside at all. They are transplanted into the bench soil about 12 inches apart each way about June 1. The temperature ranges from 58° to 60°. The subsequent treatment is much like that given the Carnation. The best and most profitable varieties used are Golden Gate, Ivory, American Beauty, Bridesmaid, and The Bride. The mildew and the green fly are the principal Rose troubles. The first is due to an uneven temperature, and is controlled by the use of sulphur and "Grape dust." The green fly is treated with tobacco fumigation or nicotine in some form. The size, quality, and number of Roses produced from these vigorous plants is a clear indication of the skill and success of their management surely.

BULLFINCHES AND OTHER BIRDS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Last winter (1903-4) we were terribly pestered by these beautiful birds. I tried to keep them off for a time by spraying the trees and bushes with a mixture of lime, soot, and sulphur, but the heavy rains soon washed it off. I then tackled them with the gun, and they were not so much trouble afterwards. The trees they chiefly attacked were Plums, Pears, Gooseberries, Red Currants, and a double Thorn near to the bush fruits. This winter I have seen but two pairs near the garden. I understand this to be the case in another garden; the trees have scarcely been touched. The question arises, How is this? In this district the Sloe is common, and the bushes near are smothered with bloom, as also were the Plums and Damsons. Is it that the birds have found sufficient food wild and have left us in peace? The blackbird is a nuisance when ripe fruit is about, but his song is grand, and he is a good worker on the land in winter and spring. The thrush is not nearly so troublesome about the fruit as the blackbird. The sparrow is indeed a pest, for in addition to his attacks on the Peas, he is extremely partial to the juicy leaves of Beetroot. We are compelled to net ours to preserve it. If we did not do so a few old birds with their progeny will soon play havoc. The cuckoo is a friend. He is very partial to the Gooseberry caterpillar, and if undisturbed will clear off a large number.

Kingsdon, Taunton.

GEORGE H. HEAD.

HISTORICAL NOTES ON NEPENTHES.

(Continued from page 250.)

THE SPECIES FIRST CULTIVATED.

ONE of the authors previously cited had a cultivated specimen under observation, though from the titles of some of the books it might be supposed that they had. Curiously enough all the early records of cultivated *Nepenthes* in this country are erroneously referred to *N. distillatoria*. Aiton (*Hortus Kewensis*, ed. 2, Vol. V. [1813], page 420) records this species as having been introduced by Sir Joseph Banks in 1789, and gives Ceylon and China as its native countries. A specimen at Kew from Bishop Goodenough's herbarium, cultivated at Kew, at that period, proves to be *N. Phyllamphora*, Willd. (syn. *Phyllamphora mirabilis*, Loureiro), the only species known from China.

The first figure of a *Nepenthes* cultivated in this country appeared in Loddiges' "Botanical Cabinet," Vol. XI. (1825), t. 1017, under the name of *N. distillatoria femina*. This was followed by a figure of the very same plant in the *Botanical Magazine*, Vol. LIII. (1826), t. 2629, under the name of *N. Phyllamphora*. The Loddigeses give no exact history of their plant, merely stating that the species was a native of Ceylon and other parts of India. They mention, however, that it was six or seven years old, 5 feet in height, and flowered in a stove in July. Sims, then editor of the *Botanical Magazine*, gives no further particulars.

Two years later a figure of a male *Nepenthes* was published in the *Botanical Magazine* Vol. LV. (1828), t. 2798, again as *N. distillatoria*, though it was known that it was the same species as that represented by t. 2629, and also that it was a native of North-East Bengal. It was figured from a plant which flowered in the Edinburgh Botanic Garden,

and it was raised from seed sent home by Dr. Carey. The specimen is in the Kew Herbarium. This figure is reproduced in Reichenbach's "Exotic Flora," t. 254, as *N. distillatoria*.

Ten years later Paxton (*Mag. Bot.*, Vol. IV. [1838] t. 1) figured the male of the same species under the same name. It may be mentioned incidentally here that Paxton was very successful in the cultivation of this Pitcher plant, which he states was more than 20 feet high and bore nearly fifty full-grown pitchers.

When Sir Joseph Hooker monographed the genus *Nepenthes*, in 1873, for Decandolle's "Prodromus," he recognised that the species figured in the *Botanical Magazine* (t. 2798) was different from *N. distillatoria*, and the same as wild specimens from the Khasya and Jyntea hills, and he described it (*Op. cit.*, Vol. XVII., page 102) under the name of *N. khasiana*. But he did not refer to the other figures, cited above, as belonging to the same species.

The plant figured in the *Revue Horticole* (1861, page 173, f. 36) as *N. distillatoria* is certainly not that species. It is repeated in the same periodical (1887, page 511, f. 104) under the name of *N. Phyllamphora*, perhaps correctly. Up to 1838, then, *N. distillatoria* was not in cultivation, and the synonymy is as follows: *N. distillatoria*, Aiton = *N. Phyllamphora*, Willd.; *N. distillatoria*, Loddiges = *N. khasiana*, Hook. f.; *N. Phyllamphora*, *Botanical Magazine*, t. 2629 = *N. khasiana*, Hook. f.; *N. distillatoria*, *Botanical Magazine*, t. 2798 = *N. khasiana*, Hook. f.

It should be remembered that Loddiges's figure and the *Botanical Magazine* t. 2629 are of the same plant. Several writers refer the latter to *N. gracilis*, probably because a few bristles appear on the wings of the pitchers, but early pitchers of wild specimens of *N. khasiana* show the same thing, and true *gracilis* is a much more slender plant.

The date of the first introduction of the genuine *N. distillatoria* is uncertain; but, as Beccari pointed out long ago (*Malesia*, Vol. III. [1886], page 2), the plant cultivated under the name of *N. zeylanica* is really this species, though it has been referred to *N. hirsuta*, Hook. f. It is figured and described in the *Gardeners' Chronicle*, March 25, 1882, page 398, f. 59, as *N. hirsuta* var. *glabrescens*. The writer states that he knew it in several gardens under the name of *zeylanica*, and there was a red variety of the same known as *N. zeylanica* var. *rubra*. *N. distillatoria* is one of the few species having a branched inflorescence. The earliest mention of *N. zeylanica* which I have seen is in Messrs. James Veitch and Sons' catalogue for 1877, page 53. The pitchers of *N. distillatoria* are usually described as wingless, but the early ones are furnished with fringed wings.

Nepenthes zeylanica, Rafinesque (*Flora Telluriana*, Vol. IV. [1836], page 101), is reduced to *N. distillatoria* in the "Index Kewensis," but this I have not been able to verify.

The next figure of a cultivated *Nepenthes* appeared in Marnock's *Floricultural Magazine*, Vol. V. (1841), page 230, plate 60. It is flowerless, and is designated "Loddiges's New Pitcher Plant," the writer not daring to give it a specific name. Apart from a peculiarity to which I shall refer again, it agrees exactly in leaves and pitchers with *N. hookeriana*, as figured in the *Gardeners' Chronicle* (1881, Vol. II., page 812, f. 157)

and elsewhere. It is, however, very doubtful whether this is the same as *N. hookeriana*, Lowe, which is referred by Hooker to his *N. rafflesiana*, and not even distinguished as a variety. On the other hand, it is the same as *N. Hookeri*, figured in Alphonse's "Promenades de Paris." Professor Macfarlane retains the latter name for it, and in a note in the Kew Herbarium he observes that he had seen three wild specimens of the same species. One of these is in the British Museum, and I have been able to confirm his identification. It is from the island of Banca, and was collected by Horsfield.

The peculiarity in Marnock's figure, which was drawn by James Andrews, a very good botanical artist, is a spur-like appendage at the base of one of the very broad, fringed wings. Whether the other wing bore a spur cannot be seen from its position in the drawing. Indeed, it is so extraordinary that one cannot help doubting its accuracy; but there are so many deviations from the normal in the vegetable kingdom that we must not assume that it was an invention of the artist.

The next species introduced was typical *N. rafflesiana*, Jack, figured in the *Botanical Magazine* (t. 4285) from living plants sent to Kew by Captain Bethune, R.N., in 1845. Soon after this date the discovery and introduction of the most notable species of the genus began, the history of which is given by Mr. Harry Veitch, largely from personal knowledge, in the paper cited above. I will only add here that *N. madagascariensis* was first introduced into cultivation by Messrs. James Veitch and Sons through their collector, Mr. Curtis, in 1879.

W. BOTTING HEMSLEY.

ROUND ABOUT A GARDEN.

THE BULLFINCH QUESTION.

THE question lately raised, how to preserve one's fruit trees in a bullfinch-haunted neighbourhood, without sacrificing the bullfinches, seems to be near to the hearts of many; but only two of the letters which have reached me seem to offer any suggestion of an answer. One comes from the owner of a garden in which there are many Bush Honeysuckles (Weigelas), upon which the numerous bullfinches appear to concentrate their attention, with the result that these shrubs flowered very poorly, but the fruit crop is entirely satisfactory. If the experience of others who have both Weigelas and fruit trees in a bullfinch neighbourhood coincides at all with this, it would seem to point one way out of the difficulty. The other letter comes from the owner of a garden where spraying the fruit bushes with paraffin and lime has, it is stated, been found absolutely effectual in protecting them from bullfinches. Thus an alternate experiment is offered to the many who find it a hard question annually to decide, whether they shall submit to the loss of a large proportion of their fruit or harden their hearts to have the bullfinches trapped and shot.

A MISCARRIAGE OF JUSTICE.

On how little evidence, by the way, a bird is sometimes condemned was shown to me the other day by a gentleman who complained that the bullfinches had that morning commenced to strip his Cherry trees, leaving the buds scattered over the ground. Having

always believed that the Cherry was one of the fruit trees which bullfinches do not attack, I went to inspect the damage, and was conducted to a middle-sized Cherry tree growing close to the ivy-clad end of the house. There, sure enough, the ground under the tree was strewn with small whitish objects about the size of Cherry buds, but which a glance showed to be Ivy seeds. Evidently numbers of birds had been feeding upon the Ivy berries on the house and using the Cherry tree as a convenient perch between mouthfuls; and during the night before the supposed ravages of the bullfinches were discovered there had been very heavy rain, which had washed all the seeds left on the branches of the tree to the ground below. And orders had already gone forth to slay all bullfinches at sight!

SPARROWS AND GREEN FLY.

The bullfinch has many friends; but the sparrow has so few that special interest attaches to a note sent by a correspondent, who states that last year he, with great satisfaction, watched this much-abused bird clearing his Rose trees of aphides or green fly. I fancy that this must be quite a local accomplishment of the sparrows of a particular neighbourhood, because I have sometimes been inclined conversely to think, from seeing gardens which are peculiarly infested with green fly also overrun with sparrows, that perhaps we ought to add to the many counts in the indictment against the sparrow that of driving away other birds, or of destroying useful insects, which exterminate the aphides. But the insect foes of the aphids are well known, and I do not think that either the lady-bird or the green gossamer fly would be palatable to the sparrow, nor do I think that he could catch the banded hover-flies, which are the parents of the third great destroyer of green fly. Moreover, all three of these insects always seem abundant in those small suburban gardens of which the sparrows examine every square inch daily. And as for driving away birds which otherwise would eat aphides, I confess to ignorance of any kind of bird which displays any desire to perform this useful task.

INEFFECTIVE BIRD ALLIES.

Jackdaws will eat them wholesale, it is said—and so, we may presume, will rooks—but these are rather cumbrous allies to look to for clearing the weak and tender shoots upon which the aphides congregate; while the very small birds, which could run up and down the twigs and feast in comfort, seem to have no liking for such fare, otherwise it would not be possible for the aphides to multiply as they do in stationary and apparently helpless hosts whenever the weather conditions are favourable, no matter how well stocked a garden may be with small birds. Thrushes, indeed, have been observed busily collecting winged aphides

from the grass after what people call a "shower of blight"; but when even a sturdy crop of plants like Broad Beans, whose thick stems would give ample support to thrushes, are devastated by aphides, no abundance of these birds seems to have any effect upon the situation.

THE GREEN FLY'S SUGAR GUNS.

From this it would appear that aphides are palatable to birds only in the winged state; and this offers an interesting suggestion of the real meaning of those drops of sugary

THE SELFISHNESS OF EVOLUTION.

But we may be sure that the aphides did not acquire the power of secreting sugar in order that ants or wasps or flies or moths should profit thereby. Evolution is a very serious and selfish business, run exclusively for the profit of each creature evolved; and the aphids would certainly not have acquired his extraordinary armament of sugar-shooting guns except for the purpose of saving his life from enemies; while the fact that a touch of the twig upon which aphides cluster, or the shadow of your hand passing over them, will provoke a broadside, shows pretty clearly that birds or mammals are the enemies against whom this queer defence has been adopted. Primarily, perhaps, it is a defence against browsing animals; but that it is also effective against birds appears plain, and the fact suggests interesting speculations as to the origin of the nectar which is secreted by so many flowers.

PROTECTIVE NECTAR.

Now, of course, we only recognise the utility of nectar in attracting insects for the purpose of securing the effective fertilisation of the flowers; but I think that originally its purpose, as a sweet vegetable exudation—distasteful, for some reason, to browsing animals—was to protect the flowering shoots during the critical period of the plant's life. Subsequently the plants have turned to good use the attraction which this exudation had for insects; and possibly, in some of the mutual-help relations which have been described as subsisting between certain ants and certain aphides, we see how the plant lice are following the same line of advantage as the plants.

But for the most part the "honeydew" which green fly produce attracts insects for no useful purpose; and, as it apparently repels insect-eating birds, we may most sincerely regret that the aphides ever acquired the trick of turning vegetable sap into sugar.

E. K. R.



SELF AURICULA DAFFODIL. (Natural size)

(Shown by Mr. James Douglas before the Royal Horticultural Society on the 11th ult., and given an award of merit.)

essence which the wingless green fly produce, commonly known as "honeydew." That ants and moths and wasps and flies are immensely fond of this "honeydew" we all know; but the behaviour of the aphides in producing it shows that it is a protection to them.

If you merely touch a shoot upon which they are thickly clustered, or even do no more than pass your hand close to it, a general wave of movement passes over the apparently helpless throng, as each individual, in response to the alarm, hoists its body and prepares to eject the sugar through the two special tubes with which it is armed, like a torpedo-boat. Ants have learned the trick of playing upon the fears of the aphides and compelling them whenever touched to deliver up their store of sugar; and from this many beautiful parallels have been drawn between the ant and the human dairyman milking his cows.

acquired the trick of turning vegetable sap into sugar.

NEW AND RARE PLANTS.

AURICULA DAFFODIL.

THOSE who garden for effect by having masses of bright and showy flowers have, as a rule, little love for the Auricula, for this is essentially a flower that needs close and careful looking into before its real beauties are discovered. Nevertheless, there are many Auricula enthusiasts, and among them is Mr. James Douglas, Edenside, Great Bookham, Surrey, who gained an award of merit from the Royal Horticultural Society on the 11th ult. for his new and beautiful Auricula, called Daffodil. Its soft yellow colouring reminds one of nothing so much as

a Daffodil, hence its appropriate name. It is a yellow self with well-defined "paste."

ODONTOGLOSSUM RAMOSISSIMUM BURFORD VARIETY.

THIS very beautiful form of an old species was finely shown by Sir Trevor Lawrence, Bart., on the 11th ult. at a meeting of the Royal Horticultural Society, and then gained a first-class certificate. As may be seen by the illustration, the narrow sepals and petals are crimped, thus giving to the flower an added attraction. The flower is ivory white, spotted at the base of sepals and petals with purple. The lower half of the lip is also purple, thus the outer half of the flower is white and the inner half purple. The plant shown by Sir Trevor Lawrence carried a splendid raceme of flowers.

NOTES ON HARDY PLANTS

MUSCARI LATI- FOLIUM.

FROM time to time those of us who have endeavoured to get together a complete collection of all the available *Muscari*, or Grape Hyacinths, have been impressed with the difficulties of identification and the apparent impossibility of securing a collection of only distinct and well recognised plants of the genus. The rare *Muscari latifolium* is one of the most distinct, although one would not have the temerity to assert that it is one of the most beautiful of the many Grape Hyacinths. Compared, say with Heavenly Blue, *Heldreichi*, and several others, it loses greatly, but it is remarkable among its class for its broad leaves, which are strap-shaped and so much broader than those of the other clustered Grape Hyacinths that one would not recognise the plant as a *Muscari* without its flowers. The flowers, which are blue at first, gradually become almost black, beginning at the base and gradually proceeding upwards. This species, which is a native of Phrygia, was first described by J. Kirk in the "Transactions of the Botanical Society of Edinburgh," VI. (1860), 30. So far it has increased but little—an unusual thing with the *Muscari*.

Carsethorn, Dumfries.

S. ARNOTT.

TULIPA KAUFMANNIANA.

IN Mr. Woodall's "Riviera Notes" in THE GARDEN of the 15th ult. he states that this Tulip is in the "misunderstood class." Perhaps my experience of this pretty March-flowering Tulip may be of interest. I obtained bulbs about four years ago, and planted them at the base of an Apple tree in a small orchard sheltered from the north-west. They have bloomed here constantly every year since. The only attention they get is the annual top-dressing of farmyard manure given to the Apple tree in early autumn. This is one of the most beautiful of all the species of Tulip, and deserves to be largely grown by all desirous of adding to the brilliancy of their gardens, for its colouring is delightful.

OBSERVER.

THE FLOWER GARDEN.

HARDY ANNUALS AND THEIR COLOUR COMBINATIONS.

VERY little grown now is the small, humble annual called Virginian Stock, and, like all humble, unassuming things, it has its uses and merits. There is a right way and a wrong way of dealing with this little flower which makes all the difference in the world to its ultimate success, and which

is being much exploited just now. I have given it a fair trial, as I was pleased with its pretty, Daisy-like flowers, but these are not effective in proportion to the space the plant will occupy when full grown, and it is both an early closer and a straggler—serious faults in an annual. Neither do I like any of the Hawkweeds.

The annual *Chrysanthemums* are quite satisfactory, but in good soil are apt to grow rather rank, so they must be kept back. *Carinatum* is the best and brightest of this species, *atrococcineum* being very showy, and *burridgeanum* effective with its trinity of colour. It is really rather difficult to work annuals into your colour-scheme in a mixed border, for they are so apt to disappoint you. Slugs and snails work havoc with those sown in the spring if the season is wet, and the labour of looking after them and protecting them against their enemies is endless. In July many of them run to seed and have to be pulled up, and then there is an unsightly bare patch and probably nothing to fill it with. Here

Verbenas grown from seed come in most usefully and afford good colour, and continue flowering all the autumn. They must be well pegged down and kept in nice tidy patches.

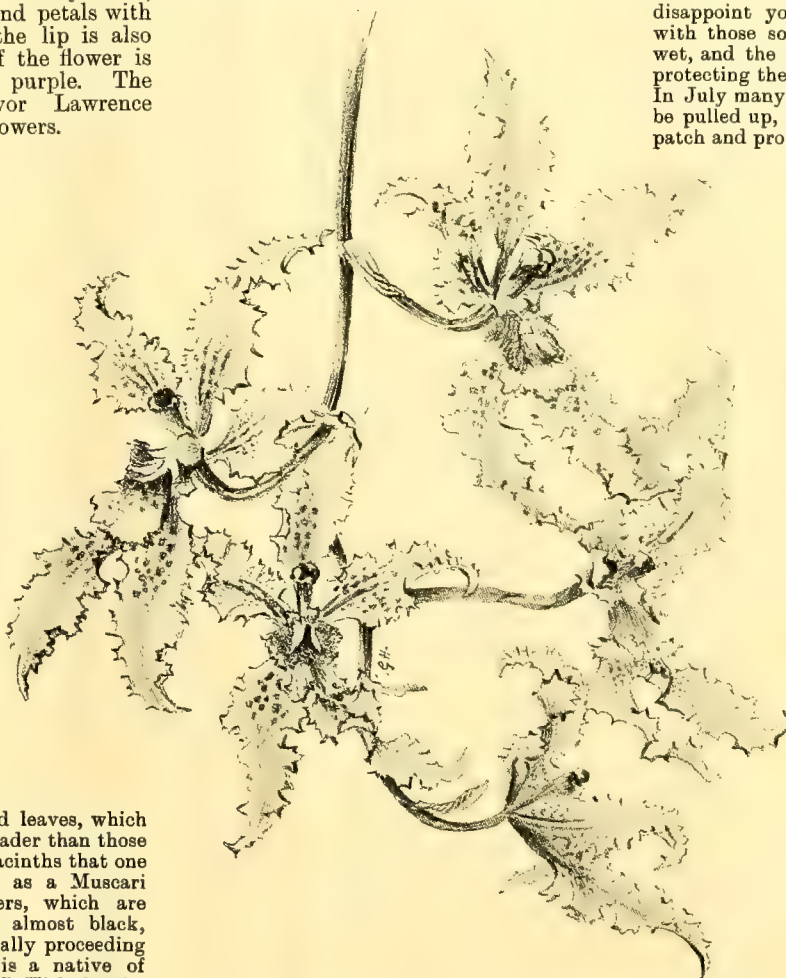
The variety *Miss Willmott* is invaluable if you want a real pink, and worth all the annuals of that shade put together. When you have large mixed borders to manage you find that biennials repay you better than the general run of annuals, because they are less trouble. *Violas* are not nearly enough used; if these are occasionally relieved of their seed-pods they will continue in flower all the summer, particularly if they are shaded a little by their taller-growing neighbours; and what a charming range of shades there are among these useful plants—yellow, white, rose, mauve, violet, purple, deep blue, and lavender. The last-mentioned colour belongs to a pretty little variety, rather scarce now, that grows well in the rock garden.

I have never been able to care for the *Zinnia*, a favourite plant with the gardener; it is ugly in form, inartistic in character, and the range of colours crude and inharmonious. But I know this is not the popular view, and in most of my neighbours' gardens *Zinnias* are very much in evidence. When we have such beautiful things as

Nemesias, *Scabious*, and *Larkspurs*, why grow *Zinnias*? *Salpiglossis* is much more effective in a bed than mixed with other flowers, but it looks extremely well in the centre of a pegged-down bed of *Phlox Drummondii*; the delicate tints seem to harmonise perfectly with various shades of that most charming and not sufficiently appreciated annual. A bed of carefully selected rose shades of the *Phlox*, edged with blue *Lobelia*, is delightfully pretty. Sutton's *Azure Blue* ought to be exactly the right thing; hitherto the cobalt blue shade has sufficed. If the *Phlox Drummondii* is sown at once it will be in flower in July, and you will pick it in abundance until the first frosts.

I must say also a few words in praise of the hardy annual *Lupins*. Here is a plant that gives no trouble, but flourishes from its infancy to its old age.

AUGUSTA DE LACY-LACY.



A NEW ODONTOGLOSSUM—O. RAMOSISSIMUM BURFORD VARIETY.

(Shown by Sir Trevor Lawrence, Bart., on the 11th ult., when it was given a first-class certificate by the Royal Horticultural Society.)

really applies to all annuals. Virginian Stock must be sown thinly, and then thinned out twice or three times, the plants being left from 3 inches to 6 inches apart. One of its merits is that it is early, and gives a soft pretty effect with its delicate pink and lilac tints in May, when colour is still scarce. I saw it charmingly employed with other small things round the base of a sundial, growing quite happily in the crevices made by the parting of the old stones, and in the same way it flourished on time-worn lichen-covered steps in an ancient garden. Like all cruciferous plants, this little annual is accommodating, and neither demands rich nor deep soil for its habitat, even growing contentedly on gravel. *Whitlavia*, both blue and violet, combine well with yellow *Violas* in the front of the border, and are very useful in filling up vacant places. I do not care for *Arctotis grandis*, which

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

GIVING NOURISHMENT TO PLANTS.—This is a very large question, and not always wisely carried out. Some amateurs think when a plant is losing tone it wants stimulating with artificial manure, while in nine cases out of ten it only wants leaving alone. To overfeed a plant is as bad as overfeeding an animal, and very often worse, because the animal can take exercise and work off some of the ill-effects of too much food. Too much water is worse in its results than too little. The person who cannot discriminate when giving plants extra diet will be sure to make mistakes. To treat all plants alike is simply quackery in its worst form. The plants we grow in gardens have been gathered from all parts of the world, and require in their treatment some thought about the circumstances to which they were exposed in their native countries. The successful gardener individualises his plants, and gives each the treatment it requires.

Some Winter Flowers.—The gardener has to keep his eyes on the future as well as the present and the past. This is the usual time for sowing Chinese Primulas for winter flowering. Primula stellata is useful for cutting. It will not make a market plant, but it is welcome for table decoration. Sow the seed and thinly cover over one-eighth of an inch deep with light soil or sand, and place a square of glass over the pan.

Some of the Difficulties of Carnation Culture.—Where the Carnation has failed, try the effect of more grit in the soil. Some years ago, when living on a heavy clayey soil, failures were many, and one always feels humiliated by failures. But after a time success came, as it comes to all who persevere, and it came in the form of more grit, chiefly from mixing road-drift in the heavy soil. But where granite is used for road-making the grit therefrom is not suitable, as it binds too hard.

Daffodils as Cut Flowers.—As in the case of other flowers, when there happens to be a profusion of bloom, there is in that of the Daffodil also the same danger of overcrowding taking place. Surely no better example of the beautiful is needed than is provided in the natural growth of these pleasing spring flowers, the foliage, in combination with the blossoms, affording an example of what to adopt when arranging the cut blooms. When growing and in flower the foliage and the blossom seem to be, as they really are, quite indispensable the one to the other. Let this be imitated, then, as nearly as possible when disposing of the cut blooms, and afterwards, if need be, compare the natural style with the opposite, or unnatural, by massing the flowers something in the same manner as they are sent to market in bunches, with which it is a rare occurrence for any foliage to be included, much as it is needed. Each flower should be so displayed as not to crowd upon that next to it; it is only in this way that the best possible effect can be had. Oftentimes when cutting Daffodils from home-grown plants there is a danger of two mistakes being made; the one is that of gathering too many sorts at once, and the other that of taking flowers which have been expanded for some time. It is not, perhaps, generally known that many who exhibit Daffodils in large numbers cut them before they are really fully expanded. Afterwards they continue to develop, but may not possibly reach quite to the size of blossoms still upon the plant; but invariably the colour is slightly better unless shading is adopted, as in the case of the florist's Tulip.

Regarding the use of the foliage, it may be urged that to cut it largely would weaken the bulbs, but a leaf here and a leaf there may be taken, so as not to make any perceptible difference; or where a good stock of the common Daffodil exists, its foliage can be taken in preference. To mix the different types is not so desirable as that of keeping them separate, nor is it in good taste to mix the single with the double varieties. For instance, Poeticus ornatus, although so beautiful by itself, is quite out of place with the common Daffodil, or with such as Emperor and Empress. Use these two latter sorts, however, in combination, and a charming effect is produced. At least four divisions can be made in this direction, each being kept to itself—viz., those with large trumpets, as Emperor and Horsfieldi; those with medium trumpets, as the Barri, Leeds, and Incomparabilis forms; those with small trumpets, as the Burbidgei and Poeticus types; and those with small flowers, as Cyclamineus, the Hoop-petticoat Narcissus, and the Jonquils.

Plants for Rooms.—The only plant that really feels at home where gas is burnt is the Aspidistra, and this in careful hands will go on improving from year to year. Palms, especially Kentias, are usually a success. It is only when they are treated badly that Kentias fail. If watered irregularly, or if the drainage is deficient or the soil unsuitable, the ends of the leaves die and turn brown. We have seen Palms placed outside exposed to the elements. This, of course, is unwise. When the pots are full of roots sulphate of ammonia will carry them on for some time, but loz. to a gallon of water must not be exceeded. This treatment will improve the colour of the fronds, and may be continued for several weeks at a time, then going back to plain water again for a time. One can never be altogether successful in gardening until one has learned to love the plants, to study their habits of growth, and watch their progress from day to day. To a rightly-constituted mind there should be as much pleasure in watching the growth of the seedling in its various changes from the seed to the flower as when its full development has been obtained, and those people who never care to look upon a plant till it flowers know but little of the pleasure of a garden or plant culture indoors. Watering is the great difficulty with many beginners. They either give too little or overdo it, which sours the soil and the plant becomes sickly, and when that stage is reached it is better to throw the plant out and begin again.

Failures are our Best Teachers, and the worst kind of failure arises from watering in dribbles on the surface. Many do this. They give their plants their daily allowance, which just penetrates the surface but does not reach the bottom of the ball where the best roots are, and then the plant shrivels up and becomes miserable.

The Best Way to Water Plants in Rooms is, when water is really necessary, to take the plant to the sink and immerse it in a pail of tepid water till the air-bubbles cease to rise. We may then feel satisfied that every rootlet has had enough. Something depends upon the temperature of the room, but in winter, once a week, one soaking of this kind will be enough. But we must not omit to apply the best test for finding out the condition of the soil in the pot, and that is to tap the sides of the pot and judge from the sound.

Creeping Plants for Rockery.—Some of these are lovely when in flower. The double-flowered

Arabis and Aubrietias in variety are lovely now creeping and hanging about, Saxifraga oppositifolia and its varieties, some of the Sedums and Sempervivums, Dryas octopetala is pretty, and the Toadflax (Linaria Cymbalaria), though a common thing, is effective in its way.

The Fragile Harebell (Campanula fragilis).—This is one of the most charming of all the dwarf-growing members of the Bellflower family, of which there are several others, some of which may possibly be hardier than that now under notice. This Harebell is seen to far better advantage as a basket plant or for brackets above the line of sight than for growing in lower positions. We have grown it with the best results for the latter purpose when having to fill brackets outstanding from a wall covered with glass overhead, but with open sides, a groundwork of climbers covering the wall itself. In its season it was here a most effective feature. It also serves a good purpose when used in quantity as marginal lines to large basket arrangements or the stages of conservatories, whereby the pots of other plants are conveniently hidden. As a window plant it is grown extensively in some parts of the country, finding equal favour with the humble cottager, the well-to-do artisan, and those of high degree. We recollect very well being shown on one occasion some plants of this Harebell by the gardener to a well-known family which were attended to by the lady of the household. When grown in a window it should be suspended no lower than the upper half. More light will thus fall upon it, this being essential to induce it to flower more profusely. Its growths will frequently reach far below the pot in which it is growing, continuing a long time in flower. It is a remarkably easy plant to propagate, division in the early spring being the better method of increase. In its culture the mistake that many make is that of over-potting. A smaller-sized pot with the soil made firmer will give the best results. The compost should consist chiefly of loam, with some pieces of lime rubble mixed with it, likewise a little decomposed leaf-soil if available. A very fitting companion to this Harebell is Campanula isophylla, or the Ligurian Harebell, a most profuse-flowering and free-growing species. For rockwork outside in sunny spots both varieties can be relied upon to give every satisfaction. Another good old species is C. garganica, which is of closer growth, having darker coloured flowers than those of C. fragilis, which are of a soft shade of pale blue. These dwarf Campanulas are all natives of sunny Italy; hence it is not well to expose them entirely during our English winters.

Pruning Raspberries the First Season After Planting.—The right thing to do is to cut down the canes to within 6 inches of the ground the first season. If the canes are plentiful and strong, leave one cane to fruit and cut down the others. When all are left to fruit the young wood will be weak and poor, and the result is unsatisfactory.

This is the Time to Sow Seeds of Carnations, and sow them under glass if possible. We give our seeds a little warmth to start them, but they are cooled down when the little plants appear above ground, and are either started singly in small pots or planted out in a prepared bed 6 inches or 8 inches apart. In this place they made strong growth, and may remain till September or October, and are then planted where they are to flower. Some of the most promising-looking are potted up for flowering indoors.

GARDENING OF THE WEEK.

FLOWER GARDEN.

CANNAS.—Divide and pot Cannas, keeping them growing slowly and sturdily in such size pots as will best meet the requirements for the positions they are intended to occupy. I would like to emphasise the utility of these plants for furnishing portions of the summer garden, as they are not so generally grown for this purpose as their merits entitle them to. The dwarfier of the large flowering varieties form effective beds by themselves or in conjunction with other harmonising plants of fine foliage and flower, while the strong, vigorous growers possess some charm of gracefulness and Musa-like contour (apart altogether from the flowers) lacking in the Cannas of years ago—the days of sub-tropical bedding. Take, for instance, the following three kinds as typical of the group I allude to, viz., *C. Ehemani*, *C. Guttermanni*, and *C. robusta*. Select a position such as a wide opening in the shrubbery, not too near the residence, or a large bed a little off a frequented walk, or a thinly planted group of Azaleas or other dwarf-growing shrubs, and plant these Cannas and similar kinds and thinly, to allow ample room for the full development and display of the noble arching foliage. Dot a few *Acalypha musaica* among them, carpet the whole with *Iresine brilliantissima*, and finish off with a broad, wavy, irregular edging of one of the fibrous Begonias (Sutton's *Fairie Queen* is very pretty), most of which take on a bronzy metallic hue as the season advances, and the result will be a delightful effect in form and colour. Of course, as all are strong growers and gross feeders, it follows that ample and rich food must be given them.

GENERAL REMARKS.—The recent unseasonable wintry weather has considerably retarded vegetation, thereby extending the planting season of evergreen shrubs. This work, however, must now be closed, Hollies and kindred subjects excepted, and where any specimens of these are to be moved, preparations for the work must be made forthwith, for all should be completed ere April is out. Late spring-planted trees and shrubs, both evergreen and deciduous, should be carefully attended to in the way of frequently syringing the young tender foliage and stems, thorough soakings of water whenever necessary, efficient mulching, and proper staking until the roots grasp a fair hold of the fresh soil and the tops are in active growth.

ROSES.—Teas, Noisettes, and any others that have been left over with a view of retarding the growth of latent buds should now be attended to, slightly shortening strong shoots and cutting out weakly spray and dead wood. Having completed the pruning, fork the beds or borders, at the same time working in a heavy dressing of well-decayed farmyard manure or a reliable and suitable concentrated manure, and to impart to the whole a furnished appearance carpet the beds with any dwarf growing plant. Violas are good for this purpose, or sow *Mignonette* very thinly, or any other desirable dwarf annual; in fact, anything that will clothe the bare ground, for bare earth visible during the summer is very objectionable, and suggestive of a fallowfield.

JOHN ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

REINWARDTIIAS.—The cuttings inserted a few weeks ago are ready for potting off singly into small pots. Place in an intermediate house and pinch out the points of the shoots when rooted in the new soil; 5-inch or 6-inch pots are quite large enough for the final potting. Use a compost of equal parts loam, leaf-mould, and peat, adding plenty of coarse sand. Stop several times during the summer. Probably their greatest enemy is red spider; to combat this select a house with a fairly moist atmosphere in which to grow them, and use the syringe frequently. Both species—*R. trigyna*, deep yellow, and *R. tetragyna*, primrose yellow—flower about the same time, October.

LILIIUMS.—Besides the longiflorum varieties, the general batch of auratum and speciosum (lancifolium) are growing freely. Top-dress some of the most forward with loam and cow manure. Encourage their growth so that they will not all flower at the same time. Fumigate or dust with tobacco powder if green fly appears.

EUPATORIUMS.—Included in this genus are several extremely useful winter-flowering cool greenhouse plants. *E. weinmannianum* (odoratum) is the first to flower in late autumn and winter. Cuttings may be rooted annually, or, if large specimens are desired, the old plants can be cut back and grown on again after flowering. *E. riparium* is the next to flower, followed by *E. vernale* about the beginning of the new year. *E. petiolare* gives us a wealth of flower during February and March. There are two distinct forms of this plant in cultivation, one a tall vigorous grower 6 feet or more in height, the other a much dwarfier plant about 2 feet high, so well shown by Messrs. Cannell this spring at the fortnightly exhibitions of the Royal Horticultural Society. *E. ianthinum* (violet) is the largest individual-flowered species. It requires a little more heat during the growing season than the others mentioned in this note. Somewhat shrubby, it is advisable to grow on some of the old plants, being a slow grower. *E. trapezoidum* (adenophorum) is in flower during April and May, growing 5 feet to 6 feet in height. All the above, except *E. ianthinum*, have white flowers. Cuttings root readily if placed in heat in a close frame or under a bell-glass about this date. If large specimens are preferred, three plants may be grown in a pot. Potted several times, grown on, and pinched during summer, good plants can be had by autumn. Fibrous loam three parts, leaf-mould

one part, manure from a spent hot-bed one part, and enough sand to keep it open will be found a suitable compost. Abundance of water is necessary during the growing season.

GENERAL REMARKS.—Pot on and encourage the most forward tuberous Begonias to make short sturdy growth. If there are too many shoots, remove one or two of the weakest with a heel, insert in sandy soil, and place in a propagating frame, where they will soon root. Stake *Schizanthus* as it becomes necessary. Apply manure water when the pots are well filled with roots. Sow more seed to obtain a batch of plants for autumn flowering. Shift on Tuberose into 5-inch pots, and pot up more at intervals for succession.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

PINE APPLES.—This is a season in which the Pine Apple can be placed in surroundings as nearly natural as is possible under artificial treatment. Growers will do well to keep plants growing as rapidly as possible, consistent with strong, healthy foliage. Endeavour to grow them with little shading. We have never found it necessary to shade here, except in the case of plants freshly planted or potted, and these were hardened to the sun quickly. A little air must be admitted as early in the day as the weather will permit, increasing it as the temperature rises, but do not let the sun decline too much in the afternoon before closing the house after syringing. Do not resort to hard firing or the leaves will become drawn and weak. The earliest Queens are now fast swelling their fruit, and will require abundance of water at the root and in the atmosphere. Diluted farmyard drainings and guano water are excellent stimulants, and may be given alternately. If the crowns show signs of becoming disproportionately large the growth may be stopped, but it must be done carefully and effectively, for if growth recommences the crown will be disfigured. Too much overhead syringing will cause the crowns to grow too fast. This must be avoided. Remove plants on which the fruits are ripening to a cooler and dryer house, so that later ones may still be encouraged to swell. Plants which were potted early in the year are making good progress, and the pots are getting full of roots. Weak liquid manure and soot water may be given occasionally with good results. Pot on later plants before they become pot bound, and take off and pot suckers before they are too large.

EARLY STRAWBERRIES OUTDOORS.—The present season has so far been favourable to the development of early varieties, which are planted in a warm, sheltered situation, and the flower-stalks will soon be at the mercy of late frosts, which of late years have done much damage to the early crops. With this experience in mind it will be advisable to have in readiness some kind of shelter for use with the least possible delay. Here we erect a temporary framework, and as the border is narrow and sloping southwards blinds are fixed at the top. These are easily pulled up and down as needed. The latest pot plants will also require protection if it is too early to place them under glass. Do not let these suffer for want of water, or they will be of little use when placed indoors. It will be necessary now to mulch all plantations with fresh stable litter. This will answer the double purpose of keeping the soil moist and the fruits clean. After the fruits on the earliest plants are set the border may be watered with diluted farmyard drainings. This will amply repay the trouble entailed.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

ORCHIDS.

DENDROBIUMS.—The raceme section of *Dendrobium*, which includes such fine Orchids as *Dendrobium dalhousianum*, *D. clavatum*, *D. fimbriatum*, *D. f. oculatum*, *D. moschatum*, *D. thyrsiflorum*, *D. densiflorum*, *D. Farmeri*, *D. Schröderi*, *D. suavisissimum*, and *D. chrysotoxum*, also the rare hybrids *D. Illustræ* and *D. Dalhousienae*, are now pushing out their flower-buds, and the plants should be placed in more warmth, and be afforded rather more water at the roots. All these species and their hybrids commence to grow soon after flowering, and may then be repotted if necessary. They grow well in pots, provided they have a well-drained open compost to root in; this should consist of equal parts of peat and sphagnum moss, with a free addition of broken crocks. After repotting the taller-growing varieties a sufficient number of the longest bulbs should be tied to suitable sticks to make the plant firm. For the next few weeks keep the plants rather on the dry side, but as soon as the young growths begin to root, a little water may be given. As the growths advance water more frequently and liberally. When the roots have a firm hold around the sides of the pot, and the growths are making good progress, syringe the undersides of the foliage with tepid rain-water several times each day when the weather is bright and sunny. In the *Cattleya* house such species as *C. Lawrenceana* and *C. Schröderi* will now be passing out of bloom, and the plants should be placed at the coolest end of the house. Keep the plants comparatively dry at the root, otherwise they may recommence to grow instead of having a good rest. It is not advisable to allow the pseudo-bulbs to shrivel too much, but a little shrinkage will do no harm. As soon as new roots are observed pushing out from the last-made pseudo-bulb, and the old roots to send out fresh ones, then is the proper time to repot the plants, or to afford them fresh rooting material.

HABENARIAS.—The carmine-vermillion-flowered *Habenaria militaris* is an Orchid that is deserving of every attention, and should be more largely cultivated, as it is easily grown, and a useful plant for cutting and decorative

purposes generally. This plant and *H. Susanna*, *H. carnea*, and its pure white variety *nivosa* are now commencing to grow, and should be repotted at once. Select pots of suitable depth, those termed as long thumbs being preferable. Afford plenty of crocks for drainage, and let the base of the tuber rest upon these, so that the top of it will be just below the rim of the pot. Fill up around the tuber with clean broken crocks to within 1 inch of the top of the pot. Being surface-rooting plants these *Habenarias* require very little depth of soil. Fill up around the remaining part of the tuber with the following compost, just covering the top of it: One-half good fibrous loam, peat, and moss in equal proportions, the other half crocksherds broken up very small, adding a sprinkling of coarse silver sand; mix the whole well together and pot moderately firmly. After repotting place the plants near the roof-glass in the East Indian house, and as regards watering, shading, &c., they should be treated very similarly as advised in a former calendar for the deciduous *Calanthes*. During bright summer weather it is advisable to syringe the undersides of the leaves. The flowering period of these *Habenarias* varies a little, but as a rule the flowers commence to open about the end of August or the beginning of September. As the various species of

LYCASTE recommence to grow they should be repotted, using well-drained pots and the ordinary Orchid potting compost. Avoid potting the plants too low, as the young breaks are easily rotted by so doing. Lycastes may be grown well at the warm end of the cool house. As the leaves of these plants are subject to the attacks of red spider, they should be sponged over at least once a month.

Burford Gardens, Dorking.

W. H. WHITE.

KITCHEN GARDEN.

BOXWOOD EDGINGS.—Kitchen gardens of all sizes require walks, and walks, to look trim, must have edgings of some sort. In my opinion no edging looks so well as Boxwood. When it is green and healthy, intact, and of uniform height the eye returns to it with a degree of rest and pleasure which no other edging can give. On the other hand, if Boxwood edgings are allowed to become gappy and irregular, their defectiveness greatly mars the appearance of the garden, however well the crops may be looking. Vacancies should now be made up, and if very numerous the better plan is to lift the part totally and replant. When replanting or beating up it is desirable to use fresh soil for the purpose. This can easily be managed by exchanging the soil from some vacant vegetable plot and having the soil which the Boxwood grew in wheeled on to the plot in return. A single spit taken out and refilled with fresh soil will be sufficient to give Boxwood a good start. When the fresh soil has been made firm and level stretch the garden line, and with the spade cut out a trench about 6 inches deep. Trim the plants' root and top to a uniform size, then plant it carefully, making all level and firm. All other intact Boxwood edgings should be clipped at this date.

RUNNER BEANS.—Seed of this favourite but rather tender vegetable may now be planted. Runner Beans are not shy growers, but to ensure a good crop they should be planted where the soil is rich and open, in a position sheltered from trying autumn winds, with full exposure to sun and air. If more rows than one must be planted, they should, where possible, be rather over 12 feet apart. Fix the Bean rods firmly in the ground 18 inches from stake to stake. For extra support fix a stronger rod here and there, then interlace with more rods so that the support may be strong enough to carry the full crop. Choice must be made of suitable rods according to the height which the Runners are intended to be grown. Plant a seed at the base of each rod. Runner Beans, unlike most vegetables, are ornamental as well as useful, and will quickly turn an unsightly object into a thing of beauty. For covering an old trellis or paling there is no more suitable creeper than the Runner Bean, with its clinging stems and bright scarlet flowers. As a fact, in many parts of Scotland it is grown more for ornamental than culinary purposes, most Scotch people apparently not realising how very wholesome its green pods are. Sutton's *Al* variety bears pods of splendid quality and immense size. Scarlet or Red Rough (old sort) is also reliable and prolific.

SALADS.—As the weather gets warmer these will be more in request. To keep up the supply make sowings frequently of such sorts as Neapolitan, All the Year Round, and Commodore Nutt. All are valuable summer kinds. They should be grown on good ground, and kept moist during dry weather. Thin out former sowings to 4 inches or 6 inches from plant to plant, and stir the surface with a Dutch hoe. Tie up *Cos* varieties to ensure crisp and tender hearts. Sow more Radishes on a cool spot.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

THE EDITOR'S TABLE.

EXCELLENT HOME-GROWN ONIONS.

Mr. Gray, Woolverton Manor Gardens, St. Lawrence, Isle of Wight, sends excellent samples of the varieties of Onions named in the following interesting note: "I was very much interested in Mr. Watson's note on Onions. No doubt the sowing of Onions under glass has a tendency to increase their size, but I see no reason why outdoor Onions should not do fairly well, otherwise

where do our market gardeners get the fine Onions we see them with. I have grown Onions as large as a tea saucer from seed sown in the open. I may say I have no convenience for sowing inside. I sowed the seed last year on February 25, and stored them on the floor of a hay loft on September 20. Of course, we have used the largest for the house, but we have a nice quantity left. I am sending you a sample of the three varieties I grow, namely, Improved Reading, Rousham Park Hero, and Sutton's Long Keeping, and you will see they have kept well. They were taken from the rest, which are all in about the same condition. This year I sowed them on February 13, and they are very fine, about 1½ inches high. I am anticipating a good crop from them. The garden faces due south-west, and is very stony. It is fully exposed to the south-west gales, and is quite close to the sea."

SPRING FLOWERS FROM IRELAND.

From The Grange, Stillorgan, Ireland, Mrs. George Darley sends a delightful boxful of spring flowers. Among them are Daffodils in variety, some very fine Polyanthuses, the flowers large, of distinct colours, and finely produced; and Pansies and Violas in beautiful shades of colour. Perhaps the finest bunch is that of the Gitanella, whose rich blue tubular flowers are very beautiful. The double *Arabis albidula* was also sent. Altogether a collection of bright and useful spring flowers.

BEAUTIFUL ROSES FROM MESSRS. R. D. WHITMEE AND CO.

We have received from this firm, who live at The Rose Nurseries, Sutton-at-Honey, Kent, perfect flowers of Catherine Mermet, Mme. Abel Chatenay, Liberty, La France, Bridesmaid, and General Jacqueminot. We have never seen flowers so fine in form and colour. Messrs. Whitmee also write: "Other sorts we grow largely are Caroline Testout, Kaiserin Augusta Victoria, Mrs. John Laing, Ulrich Brunner, Perle des Jardins, Sunset, Sunrise, Mrs. W. J. Grant, and Niphetos."

THE FRUIT GARDEN.

FIG TREE PINGO DE MEL.

I AM sending herewith a photograph of a Fig tree Pingo de Mel. It was planted out in the Fig house last December from a 10-inch pot in a restricted border of about 1½ square yards, and about 15 inches deep, of three parts good loam to one of old mortar rubble; this was on a good drainage of broken bricks. In planting the roots were disentangled, cut back, and laid out evenly, the soil being then made firm. The tree was well watered and received no more until the fruits were developing freely. From that time the roots were never allowed to get dry. The house was closed for forcing the first week in January, with a night temperature of about 40°. This was gradually increased until March 20, and is now kept from 55° to 60°, with a good rise during the day with sun-heat, the tree and house being syringed morning and afternoon. There are now forty-nine good fruits of medium size on the tree. Trained near the roof of the same house is an old tree of the variety Brown Turkey, covering a space of about 260 square feet, and carrying a first crop of over 400 fruits, which are somewhat larger than the former variety, but judging by appearances the Pingo de Mel should ripen its fruits about a fortnight in advance of Brown Turkey. I may add, I do



FIG PINGO DE MEL.

not practise the method of stopping the young growths of trees that are planted out, except in the case of young trees where I want plenty of basal growths.

A. CHEFFINS.
Newbold Revel Gardens, Rugby.

PROFITABLE AND UNPROFITABLE APPLES.

(Continued.)

AMONG dessert varieties those that have proved to be most constant are Allington Pippin, which is remarkably handsome, and Cox's Orange Pippin, which here colours splendidly. Worcester Pearmain is invariably prolific, and valuable chiefly on that account. Braddick's Nonpareil is also reliable and very useful early in the year. Duchess of Oldenburgh is one of the best croppers, it is also very handsome; these, however, constitute its chief merits. Ribston Pippin, Claygate Pearmain, and Egremont Russet have each proved to be regular though at no time very heavy croppers. Sturmer Pippin and Brownlee's Russet, on the other hand, are constant heavy bearers, the former being the best flavoured, though both are valuable owing to being very late keepers. American Mother and King of the Pippins must not be overlooked, for they are regular free croppers. The above have been singled out as the most profitable Apples that we possess, in so far as it applies to bearing a crop of fruit, though we have other valuable kinds that closely rival them in this respect. Those named can, at any rate, be depended upon as prolific croppers in this district.

UNPROFITABLE APPLES.

The unprofitable or shy-bearing kinds are as follows: Gloria Mundi is one of the worst, and though it has been in a degree improved by root pruning, it is, nevertheless, still not worth its room. Until last year, when it bore fairly well, Striped Beaufin has also been a very shy cropper, but it may be remarked that Mr. J. Watkins of Hereford thinks highly of it when grown as a standard. Tyler's Kernel has also been a very shy bearer, not having carried a really good crop, though it usually has a light one. So far we have not been altogether satisfied with either Bramley's Seedling or Blenheim Orange, yet they have improved by being root pruned, and are more promising now than when the trees were younger. They are, however, more suitable for standards than for bushes. Golden Noble and

Ross Nonpareil were failures owing to canker, and have been uprooted. Lady Sudeley, Red Astrachan, and Irish Peach have proved to be very shy bearers. Lord Burghley has so far been practically fruitless, but we are looking forward for a change this year, as the trees appear now to be thickly studded with fruit buds. Until last year, when the trees bore heavy crops and the fruit was much thinned, Annie Elizabeth had not been satisfactory. T. COOMBER.

The Hendre Gardens, Monmouth.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

NAME OF INSECT (C. A. L.).—The insect you enclosed is a male specimen of one of the common water beetles (*Dytiscus marginalis*), which no doubt got into your greenhouse by mistake. These insects often fly about, and it is supposed that they sometimes mistake glass houses for water, as they are known to frequently drop on to them. I do not suppose there are any more in your house, but if there are they will do no harm.—G. S. S.

FUNGUS ON CAMELLIA LEAVES (E. Holland).—The fungus on your Camellia leaves is *Fumago vagans*, commonly known as the sooty mould of the Orange. It is not parasitic on the leaves but on the honeydew deposited by aphides or scale

insects. If you destroy these insects you will not be troubled by the fungus. You will find the insects on the undersides of the leaves just above those which are covered by the fungus; the honey-dew drops from the insects. You can easily wash the fungus off with a little warm soap and water.

INSECT ON LAWN (*R. S. Smallman*).—The insect you find burrowing in your lawn, of which you enclosed a female specimen, is one of the burrowing bees (*Andrena fulva*). They are quite harmless in every way, the holes they make are merely to form chambers in which they deposit their eggs, placing enough food with each grub to last its lifetime, so they do not feed on the roots of the grass.

ROSE SHOOTS DISEASED (*Sir G. Campbell*).—The shoots of your Roses are attacked by a fungus (*Botryosphaeria diploia*), a by no means uncommon pest. The best remedy is to cut off and burn the infested shoots, so as to prevent its spreading. No application of fungicides is of any use, unless they were applied at the time the spores were being liberated, as the growing portions of the fungus are in the tissues of the shoots.

A CURIOUS PRIMROSE (*Brancaster*).—The curious leafy appearance of the calyx is somewhat common with the Primrose and its varieties. It has been given the name of *P. vulgaris* var. *macrocalyx*, and is an instance of what is termed the phylloidy of the calyx, or the assumption by the calyx of leaf-like characters. No cause is known to be responsible for this change, and certain plants will retain the character for an indefinite time, coming up year after year till the plant dies. This variety may be propagated by division of the root, but sometimes on removal to fresh ground the flowers revert to their normal character, although this is not always the case. The Cowslip also sometimes assumes this abnormal character, but hardly to the extent of that in the Primrose, having merely a much-inflated calyx. Further information on this and other kindred subjects may be found in "Vegetable Teratology," by Dr. Masters.

HOLLOW-STEMMED MUSHROOMS (*A. B. Camb*).—As regards the cause of the hollowness of the stems of some of the Mushrooms (with consequent bitter taste), while others on the same bed and from the same spawn are all that can be desired, this only goes to show how difficult it is to account for the eccentric behaviour of the Mushroom when grown under artificial conditions. It is a common experience to come across Mushrooms affected in the same way. This has generally happened in our experience after the bed has been bearing for some considerable time, and we have usually found on examining the bed in that part where the hollow ones grow that that part was over dry, and to this we have attributed the cause. Evidently in your case it is not the fault of the spawn, and therefore must be attributed to some adverse condition of the manure, atmosphere, or other surrounding conditions. You have evidently an excellent strain of *Cineraria stellata*, the self-coloured flowers sent being of large size and a beautiful soft mauve colour.

IPOMŒA RUBRO-CERULEA (*M.*).—(1) This is of too delicate a nature to succeed out of doors in the London district, as you will understand from the fact that it is a native of Southern Mexico. The notes in THE GARDEN, where it is described as doing well out of doors, are mainly from especially favoured districts in the south-west of England, where so many plants that need greenhouse treatment in the neighbourhood of London thrive out of doors. (2) Given a suitable temperature there would be no difficulty in growing this *Ipomœa* in boxes such as those specified by you. (3) This *Ipomœa* is less vigorous than some of the others, for which reason 1 foot between each plant will be sufficient. (4) *Ipomœas* and *Convolvulus* both belong to the natural order

Convolvulaceæ, and are only separated from each other by slight botanical differences; indeed, many species are by some authorities placed in the first genus, and by others in the second. A good form of *Convolvulus major* would, under the conditions you name, be more likely to give satisfaction than *Ipomœa rubro-cerulea*, though when flourishing this last is so beautiful as to well merit all that has been said in its favour.

PLANTING CRIMSON RAMBLER ROSE (*Q.*).—It is now decidedly too late to plant a Crimson Rambler Rose in order to prune it back hard, as the growth will already be too far advanced. Strong examples of this Rose are, however, kept in pots by many nurserymen, and these may of course be planted (but not cut back) at any time. If planted now it will become established before winter, and consequently break away freely when cut back next season.

TRAINING FOR A GARDENER (*B. D.*).—Enquiries by a young gardener as to the best method of training to undergo in order to obtain a good knowledge of the profession, the first question is, Would it injure a fellow to serve one year in a garden and then leave and serve two years in some botanic garden? We do not know the age of the enquirer, what previous experience he may have had, or the nature and extent of the garden in which he is employed. Neither does our young friend say whether he wishes to qualify as a private gardener, nurseryman, or for a position in a public park, &c. However, we will conclude that he is qualifying for the first, and that the garden he is now in is of moderate extent, and that good gardening is generally well represented in it. In that case we should advise his staying where he is for at least two years to become well grounded in the practical work of the garden, by that we mean the rough and the smooth of it, such as digging, staking, and other manual labour every young gardener ought to well master in the initial stage of his career. The next question is, Is a botanical garden a good place to serve one's time in? If you wish to qualify for a botanical gardener, yes; but if as a private gardener, no. We suppose that it is the last you are proposing to follow. In that case,

after spending two years in your first place, and where you will have been well grounded in most of the elementary lessons in gardening, we should advise you to enter some good botanical gardens, where you would have an opportunity of being well grounded in the science of botany and the knowledge of plants and trees. After spending two years there your next endeavour should be to secure employment for another two years in one of the largest and best of our celebrated gardens. Your past experience, knowledge, and maturer age would qualify you to take a responsible position in such a garden under a good foreman for another two years, when, if you have made the best use of your time, you should be able to take a foreman's position in a good garden for two or three years longer, when by the experience and the success you had gained in subordinate positions you will have secured the friendship and influence of those whom you have served under, and which should go a long way to help you to obtain a head-gardener's position in due time. As regards serving an apprenticeship we are of opinion that it is best to do so, paying the head gardener a moderate premium for the tuition he is expected to give. There are occasionally local and special reasons against this system, but the apprenticeship system is the best.

SULPHATE OF AMMONIA (*Railway*).—Sulphate of ammonia is a valuable manure, and may be applied with advantage to almost every garden crop, as it supplies concentrated nitrogen in a form easily taken up by plants. Care must be taken in not applying it too strong or damage will certainly follow, as it is a powerful stimulant. Before being applied it should be ground down fine. A safe quantity to use is 1 lb. to 1½ lb. per rod or perch.

THE WINEBERRY (*M. Firminger*).—This is of Japanese origin, its botanical name being *Rubus phoenicolasius*. It succeeds well in this country grown in the same way as the Raspberry. Its Mulberry-shaped berries are produced in profusion, and make a delicious preserve, but the fruit is not generally appreciated as dessert. The branches that bore fruit last year should



MESSRS. ROBERTSON'S EXHIBIT OF DAFFODILS AT THE RECENT SPRING SHOW AT DUBLIN.

have been cut away close to the ground early last winter, and the new shoots of last year's growth only preserved, as those are the shoots which will produce fruit during the current year. Much better quality fruit will result from plants nailed up than from those permitted to grow in a tangle, which would be the case if the branches were allowed to root into the ground at will. The sprays you say that are dying are those which fruited last year, which should have been cut away early last winter. Those sprays you speak of as covered over with fresh growth should be taken care of and nailed up, as it is from these that fruit may be expected during the current year.

TRAINING SWEET PEAS (*F. J. F.*).—We much prefer using ordinary Pea sticks rather than string or wire netting; providing you get sticks with plenty of twiggy growth on them we do not think you would find anything more suitable. If your sticks are bare of these twiggy growths, they would not, of course, be so satisfactory, wire netting, string, or wires have such an artificial appearance, altogether out of keeping with a garden.

GRAPES SPOTTED (*C. F. Durham*).—The atmosphere of the vinery has been too cold and damp in the mornings, with the consequence that the Vines and the berries have not had time to dry before the sun with considerable power has been shining on them. Use a little more fire-heat at night for some little time yet, and give more back air at night also. The variety, we presume, is Lady Downe's. It is more liable to this trouble than any other sort we know, but by giving a little extra air night and day, with moderate warmth in the pipes at night until the Grapes have finished stoning, we have always been able to steer clear of this trouble, which is usually called scalding of the berries. The heat from the smouldering trellis in your vinery may have had something to do with injuring your Vine leaves, but we think the injury has been caused more by the same agency as that which has caused damage to the berries, namely, too sluggish, cold, and damp an atmosphere in the morning. The remedy recommended in the case of the berries will apply also to the leaves.

CULTURE OF SEAKALE (*D. M. R.*).—Many gardeners take up the Seakale crowns and plant 3 inches apart in a Mushroom house for forcing, and when the crowns are lifted in November or later the side roots and tap roots are taken off and cut into pieces about 4 inches long and laid in damp sand, ashes, or earth, thick end upwards, and covered thinly with dry litter. During the winter the root cuttings will form crowns, and in March, when taken out for planting, remove all miniature crowns so that only one strong crown is left to form the future forcing crown. Plant with a dibber in rows 15 inches to 18 inches apart, and 12 inches between the rows, covering the crowns about half an inch. This is the course to adopt when the crowns are intended to be lifted for forcing in the Mushroom house or elsewhere. But when forced on the ground under pots plant in patches of three, thus, * * * so that the pots will cover them easily, the groups to be 2½ feet apart from centre to centre. Exhausted plants or if planted in poor land will run to flower speedily; in fact, all plants will flower more or less, and there is no way except good cultivation to keep this flowering habit within bounds, but all flowering shoots should be removed promptly as soon as they show. It is desirable to make new plantations occasionally, and start again with cuttings of the roots. This should be done in early spring. A sprinkling of salt, 1 lb. to the square yard, will be useful. Soot and lime will also be useful in driving away slugs and snails.

PERSIMMON PLANTS (*Worcester*).—The plants of Persimmon will in time bear fruit without grafting, that is, if they are placed under conditions favourable to their full development.

Even in the southern part of England they need the protection of a south wall, or, better still, a glass structure; indeed, the best fruiting examples we have met with were grown in a warm greenhouse fully exposed to the sun. The plants, each of which bore several fruits, were about 6 feet high. Their flavour, however, did not gain them many admirers, and though handsome it is more than probable that being seedlings they were by no means equal to some of the named varieties, of which there are a great number; in fact, more than 100, according to a Japanese catalogue now lying before us. Fruit might certainly be obtained in less time from your plants if they were grafted with some of the tried varieties, but we are sorry not to be able to inform you where they can be obtained, as none of our nurserymen seem to have seriously taken up the culture of the Persimmon in this country. A notice in our advertising columns would, however, in all probability elicit the required information. The culture of the plant itself is not at all difficult, as it grows freely in a compost principally made up of good open loam, and given effectual drainage a liberal supply of water may be afforded it during the growing season. Little pruning is needed, the principal consideration in this way being the removal of any branches that show a tendency to become overcrowded.

CHRYSANTHEMUMS FOR EXHIBITION: WHEN TO STOP THE PLANTS (*E. B.*).—You ask us when you should stop the plants mentioned in your list when grown for exhibition. The varieties are of a mixed character, and some are totally unsuited for exhibition. You do not say when the show is to be held, and that leaves us in doubt as to the advice to give you. We will, therefore, assume the display is to be held during the earlier half of November, and suggest the following treatment:

Name.	Type.	When to stop.	Which bud to retain.
Miss Violet Foster	I.	at once and end June	second crown
Major Bonaffon	"	May 15	first crown
Mme. Ed. Rogers	"	at once and June 21	second crown
Primrose League	P.	at once	terminal buds
G. J. Warren	J.	"	second crown
Kimberley	"	at once and end June	"
Emily Mileham	"	May 21	first crown
La Triomphant	"	at once and end June	terminal buds
Golden Gate	"	May 12	first crown
Mrs. Emma G. Fox	"	" 21	"
Condor	"	" 15	"

Neither Primrose League nor La Triomphant have any value for exhibition as cut blooms, and Condor is far too old and wanting in quality when compared with newer kinds. H. J. Jones's "Chrysanthemum Guide," "The Culture of the Chrysanthemum," by W. Wells, or "Chrysanthemums and How to Grow Them," by J. B. Wroe, are three suitable works for you.

GRAFTING YOUNG VINES (*S. M. W.*).—The term grafting is applied to that mode of uniting two different varieties of Grapes together when the Vines are dormant, that is, before growth has commenced, and when the young Vine would have been grafted to the stem of the old one. But it is too late to carry out this system now, as growth is more or less advanced; but another way of uniting the two, and one that is equally efficacious, is by grafting a shoot of this year's growth of the young Vine on to a like shoot of the old Vine, when the two young shoots will soon unite, and the one belonging to the young Vine will make a long and vigorous shoot this summer, and will ultimately take the place of the old Vine. The shoot of the old Vine, to which the young one has been grafted, should not be allowed to grow beyond three or four leaves above where the two are joined together. The young shoots before they are grafted should be about 15 inches long, and the way to graft them is to cut out a slice of the bark of each about the middle, or rather lower down than the middle of the shoot, 1½ inches long, a quarter of an inch wide, and just a little deeper into the tissues of the shoot than the bark. Bring these two cut surfaces together, and tie them firmly with some soft matting, whipping it round several thick-

nesses to prevent the wounds drying up too quickly. The operation must be carried out with much care or the young shoots may be broken, as at this stage they are extremely brittle. The union will soon take place, but the matting which fastens it must not be removed for two or three months. In about three years time, if all goes well, this new shoot will fill the place of the old Vine. You can put white Grape on black, or black on white, it makes no difference.

HEDGES FOR KITCHEN GARDEN (*Jury*).—We can recommend both Beech and Holly for your hedge. The choice depends on the amount you are prepared to spend on it. Of the two the Holly will give the better shelter, but to get a hedge 4 feet to 5 feet high at once will cost you from 8s. to 10s. a yard run. Small Hollies about 1½ feet to 2 feet can be procured fairly cheap, and Beech at the same price should be good plants 4 feet or so in height, which would form a hedge at once. The Beech gives a fairly good shelter, but the Holly is the better, though, as we have said above, you must be prepared to pay a good price if you wish a hedge at once, or wait a few years if you use smaller plants that are not so costly. As an alternative to either we can recommend Oval-leaved Privet, Arbor-vitæ, or Thuya Lobbi, which are all fast growers, and can be bought fairly cheap.

ORCHIDS FOR SMALL HOUSE (*Rydon*).—The Orchids you name are by no means the best for a beginner to start with. Many professional gardeners find trouble with such as *Celogyne dayana*. This species would be well suited in this class of house, where a minimum temperature of 60° is maintained. During the growing season it needs water freely. Reduce the supply after the completion of the pseudo-bulb. When new roots are being emitted is the time for resurfacing or rebasketing if the compost has become sour. Use a mixture of two parts fibrous peat, two parts sphagnum, and one part leaf-soil well mixed together with a little coarse sand. *Dendrobium wardianum* and *D. nobile* will also grow well in this structure. During the growing season they should be afforded new material if this is required, using equal parts of peat and sphagnum, with some small crocks and coarse sand all mixed together. After potting water only when the compost has become thoroughly dry till the new roots have entered the new material, then till the completion of growth water freely, reducing it gradually after that season till flower-buds are in evidence, when rather more will again be required. We would advise that ordinary flower-pots be used, giving a good drainage. This would also apply to *Cattleya gaskelliana*, and the best time for the work is when new roots are in evidence at the base of the new bulbs. The same compost as advised for *Celogyne dayana* would suffice. Give a position at the coolest end of the house. *Calanthes* should be potted up annually as advised in calendar notes in a recent number of THE GARDEN. *Celogyne cristata* would be better suited grown cooler, and if the compost is sour repotting may now be done, using a mixture of fibrous peat two parts and one part each of fibrous loam, sphagnum, and leaf-soil mixed together with some coarse sand. Yes, all old, useless pseudo-bulbs should be removed. Orchids generally do require a season of rest, and when they are neither growing nor producing flower is the time it should be afforded. You will, we are sure, have most of your difficulties removed if you follow the Orchid notes, especially those of the calendar in THE GARDEN. There is a book for amateurs written by Mr. W. H. White, which would be of great help to you. It is published by Lane, Vigo Street, W., 2s. 6d.

NAMES OF PLANTS.—*A. Derry*.—The Orchid is *Celogyne massangiana*, and the shrub is the double Kerria (*K. japonica fl.-pl.*).—*G. F. B.*—*Ornithogalum nutans*.—*M. A. R. C.*—You are quite correct. *Amelanchier* and *Pyrus Malus floribunda*.—*Adelbury*.—1, *Narcissus Burbidgei*; 2, *Bicolor Empress*; 3, *Rugilobus*; 4, *C. W. Cowan*;

5, much withered, but apparently incomparabilis cynosure. —A. B. H.—1, *Scilla italica*; 2, *Helleborus viridis* var. *purpurea*-cens; 3, *Potentilla splendens*; 4 and 5, flowers gone, but evidently the plants are both forms of *Erythronium dens-canis*. —T. H. Worcester.—The Violet is Marie Louise, so far as can be determined from the poor specimen sent. The whitish-leaved shrub is *Santolina incana*. The other plant may be one of the *Michaelmas Daisies*. Please note that all specimens for naming should be numbered, and sent only when in bloom.

SHORT REPLIES.—E. Norton, Bournemouth.—The Daffodils were quite shrivelled, so we are unable to name them. You omitted to send your address, otherwise we might have written to you. If you can send any more flowers with the stalk ends in damp moss we shall be very pleased to name them.—A. K. M.—Wagtails and blue tits are especially prone to this habit of pecking at windows in spring, when they are full of quarrelsome feelings towards all other birds of their own kind and sex. It is a sign that the bird will nest not far off, and is doing its best to drive away a supposed rival—its own reflection in the glass.—E. KAY ROBINSON.—Q.—*Clematis Flammula* is likely to succeed as well as any other flowering climber under the conditions you name, but it is by no means an ideal spot for it.

TRADE NOTES.

THE SUTTON CUP FOR SWEET PEAS.

THE National Sweet Pea Society is exceedingly fortunate in having this the direct co-operation of Messrs. Sutton and Sons of Reading, who have presented a very beautiful silver challenge cup for competition in the society's audit class for nineteen specified varieties. The value of the cup is 15 guineas, and as every variety mentioned is in general cultivation it is certain that the entries will be very large. The winner of the cup will receive a gold medal from the society as a permanent memento of success.

A VALUABLE FLOWER CLIP.

The question of tying or securing flowers and plant stems neatly and obscurely is always a vexed one with the gardener, and we are sure many will be glad to know of the new patent flower clip introduced by Messrs. Wood and Sons, Wood Green, London, N., of which we give an illustration. The illustration shows well the form and efficacy of this clip, but among its advantages we may mention durability, a great saving of time—for a dozen can be fixed in the time ordinarily occupied in tying one with raffia—it will fit sticks and other supports of varying



sizes, it can be adjusted with one hand, and always looks neat and tidy. Messrs. W. Wood and Sons are the sole agents.

SOCIETIES.

ROYAL BOTANIC SOCIETY.

THE monthly exhibition of this society on the 19th ult., was, perhaps, better than any of the previous ones. Several fresh exhibitors sent groups of plants and flowers. This is encouraging to the society, which is working hard to popularise its shows and garden.

Messrs. R. H. Bath, Limited, Wisbech, were awarded a large silver-gilt medal for a very bright representative group of Narcissi and Tulips. A new early Tulip, Golden Queen, very rich yellow, and Vesuvius, rich crimson,

were two fine ones. The Narcissi comprised all the leading sorts. Especially fine were poeticus King Edward VII., Glory of Noordwijk (bicolor trumpet), Weardale Perfection, Eyebright, and Virgil, the two latter Parvi-coronati varieties.

The cut Roses from Messrs. Frank Cant and Co., Braiswick Rose Garden, Colchester, were a beautiful lot. There were bunches of Leonie Lamesch, Tea Rambler, W. A. Richardson, Eugenie Lamesch, Lady Roberts, Philippine Lambert, and others; and single blooms of General Jacqueminot, Ethel Brownlow, Mamie, and many more favourites, as well as of the new copper yellow Tea Dr. Felix Guyon, the pale salmon H. T. Senateur Belle, and the rich bright rose H. T. Gustave Grunerwald. Large silver-gilt medal.

The Camellias, cut from plants growing out of doors unprotected in the grounds of Sir F. Tress-Barry, Bart., St. Leonard's Hill, Windsor (gardener, Mr. R. Brown), made a most attractive exhibit. Numerous varieties were shown, Bealii, a deep crimson, and Chandlerii being two of the finest. Large silver medal.

Daffodils in great variety, Tulips, and St. Brigid Anemones were well shown by Messrs. Hogg and Robertson, Rush, County Dublin. Among the Narcissi Mrs. C. R. Hamilton (white perianth, rich yellow orange-tipped cup), Lady Arnott (deep yellow perianth, orange scarlet cup), Lady Margaret Boscawen (bicolor Ajax), Aurantius plenus, Leedsii Mrs. Langtry, and N. odoratus rugulosus were some of the most notable. Silver-gilt medal.

The zonal Pelargoniums from Messrs. Cannell and Sons, Swanley, Kent, made a brilliant show. Many fine varieties in the richest shades of colour were included. Large silver-gilt medal.

Bruce's Flower Displayers, most useful for arranging flowers in vases, were shown by Mr. George Sage, 71, Manor Road, Richmond. He also exhibited the Four Oaks Undentable Syringes.

Mr. George Mount, Canterbury, gained a large silver-gilt medal for a group of cut Roses. The blooms of Liberty, Ulrich Brunner, Captain Hayward, Mrs. John Laing, Mrs. W. J. Grant, Mme. Chateau, and others, all on long stems, were very fine.

Messrs. Barr and Sons, King Street, Covent Garden, showed a representative collection of Narcissi, which contained Gloria Mundi, Mme. de Graaf, Rev. D. K. Williamson, rich yellow trumpet; Lucifer, Willie Barr, Apricot, Peach, Weardale Perfection, Duchess of Westminster, and other good sorts, all well shown. Such Tulips as Sir Thomas Lipton, King of Yellows, Brunhilde, Keizer's Kroon, Princess Wilhelmina, and Duchesse de Parma were also contained in the group. Large silver-gilt medal.

A very attractive group of flowering and foliage plants was arranged by Miss Adamson, South Villa, Regent's Park (gardener, Mr. Kelf), and obtained a gold medal. It contained Rhododendrons, Azaleas, Lilies, Anthuriums, Orchids, Palms, Ferns, &c., each effectively disposed in masses.

A silver-gilt medal was accorded to Edward Wagg, Esq. (gardener, Mr. W. Phillips), The Islet, Maidenhead, for a handsome group of Cinerarias, both of the stellata and the large-flowered types. The colours were good and distinct, and the plants effectively displayed.

Dr. Robert Boxall (gardener, Mr. Sicklemore), Abinger Common, Surrey, was awarded a silver medal for a collection of Narcissi.

Barr's Daffodil Vase (given as a special prize by Messrs. Barr and Sons) was won by H. R. Darlington, Esq. (gardener, Mr. Bignell), Potter's Bar. Emperor, Johnstone, King of Spain, Mme. de Graaf, Gloria Mundi, John Bain, Autocrat, and K. Spurrell were included.

The group of flowering shrubs and hardy flowers from Messrs. Cutbush and Sons, Highgate, N., was a most interesting one, and gained a gold medal. Liliun Hansonii made a bright bit of colour, and Tulips, Geums, Primulas, Saxifrages, hardy Cyripediums, Narcissi, and other flowers were used in the foreground, while Azaleas, Laburnums, and other shrubs were at the back. A very fine lot of Cyripedium spectabile were shown in pans.

The Ghent Azaleas, Lilacs, Viburnums, and other shrubs in flower from Messrs. R. and G. Cutbush, Southgate, N., made a very bright display. They were tastefully arranged among Japanese Maples and other greenery, producing a very pleasing effect. Large silver-gilt medal.

A gold medal was awarded to H. L. Bischoffsheim, Esq., Warren House, Stanmore (gardener, Mr. C. J. Ellis), for a group of Anthurium schertzerianum and Orchids in variety. The former, which carried very fine and richly coloured spathes, were arranged at either end of the table, and the Orchids in the centre. Among the latter were Cattleya Mendelii, C. Schroderae, Odontoglossum andersonianum Warren House variety, and others.

Mr. Williams, Oxford Road, Ealing, showed rural table decorations.

Botanical diagrams illustrating the anatomy of plants were shown by students of the gardening school.

EAST ANGLIAN HORTICULTURAL CLUB.

THERE was a large attendance of members at the April meeting at the Shirehall Hotel, Norwich, to hear a discourse upon the Potato by Mr. Walter P. Wright, secretary of the National Potato Society. Mr. J. Powley presided, supported by Mr. T. B. Field (Ashwellthorpe). Among those present were also Mr. Charles Daniels, Mr. J. Clayton (Messrs. Daniels Bros., Limited), J. Forder, H. Read, Robert Holmes, C. Hubbard, E. Peake, &c. Mr. Wright told his hearers that he deplored the recent boom of varieties which had turned out useless. There was, however, one bright gleam in the matter, inasmuch as it had brought out more prominently the importance of the Potato as a product. The worth of the yearly crop based upon recent

returns ran into rather astounding figures. Soils was a subject which grieved many, but the stereotyped sandy loam was not alone capable of growing Potatoes. He had grown tubers which could win prizes on the stiff clay of Kent. It only required observation of varieties to succeed. Speaking of manure, he advocated a combination of farmyard and artificial, and of the latter a much larger percentage of superphosphate than any other ingredient. On the question of seed tubers many errors were made. It had been proved from experience that the best results were obtained from large, strong tubers with strong shoots, which grew away well and were better able to stand against disease. Scotch growers had a method of lifting



THE SUTTON CHALLENGE CUP.

their tubers for seed purposes before growth was completed and "greened" them by exposure. These were then found to grow better the following year, and resist the dreaded curl disease. Other points on planting, diseases, &c., were ably dealt with. A good discussion followed.

To augment the subject Messrs. Daniels Bros., Limited, had staged two dozen baskets of standard varieties, including Duchess of Norfolk and an unnamed seedling of promising merit as a maincrop, also splendid tubers of their variety Sensation which is fast gaining favour. The usual monthly exhibition of flowers, fruits, and vegetables was well contested. Mr. F. Williams, gardener to Louis Tillet, Esq., M.P., was first for Strawberries with a dish of fine, well-coloured fruits. He was also first for a pot of Mignonette. Mr. W. Shoemith, gardener to F. W. Harmer, Esq., Cringleford, was also a prize-winner for Strawberries, flowering plant, and Lady's Spray. Apples begin to show a falling off of quality. Broccoli and Cabbages were prominent. Mr. S. Hunt taking first for the former, and Mr. C. H. Fox for the latter. The duties of judging was carried out by Messrs. R. Holmes, H. Read, and W. White.

THE READING AND DISTRICT GARDENERS' ASSOCIATION.

DURING last month two excellent papers were read before the members at their usual fortnightly meetings, and the subjects gave rise to great interest. The first was "Gourds and their Place in the Garden," and was treated in a most interesting manner by Mr. J. W. Odell, a member of the Scientific Committee of the Royal Horticultural Society, who, by the aid of the lantern, showed that not only were many of the varieties of Gourds suitable for food, but were excellent subjects for the decoration of the garden. The second was "Winter-flowering Plants," and this was treated in a most practical manner by Mr. J. A. Hall of Shiplake Court Gardens. The most popular flowers were touched upon, and in some cases the lecturer severely criticised the manner in which some were cultivated. This gave rise to a most animated though practical discussion, upwards of twenty members taking part in the debate. The exhibits were numerous and of excellent quality. Mr. F. Lever, The Gardens, Hillside, staged a magnificent collection of bulbous flowering plants, including Hyacinths, Tulips, and Narcissi. Mr. J. Price, The Ferry Gardens, Shillingford, twelve plants of Cyclamen.

These showed exceedingly high-cultured skill, and were some of the finest specimens ever exhibited in the club-room. Mr. G. Carter, Gordon Lodge Gardens, some fine plants of *Cineraria* carrying large blooms of beautiful colours. Mr. W. Townsend, Sandhurst Lodge Gardens, some interesting plants of *Eupatorium lanthum* with purple *Ageratum*-like flowers. Mr. W. Barnes, Bear Wood Gardens, some excellent blooms of *Gardenia*. Mr. C. Woolford, The Knowle Gardens, a vase of beautiful flowers of *Marie Louise Violets*. Mr. Slyfield, Wimmers Lodge Gardens, two vases of *Anemone* blooms produced from self-sown seed, blooms of good size and varied in colour.

THE REDHILL AND REIGATE GARDENERS' SOCIETY.

THIS society held its fortnightly meeting on the 11th ult., Mr. Seaman in the chair. Mr. E. Hawes of the Botanic Gardens, London, delivered a most instructive lecture on "The Value of Botany to Gardeners." That Mr. Hawes is thoroughly at home with his subject there can be no doubt from the manner in which he explained the various ways in which plants take up their food from the soil. These foods, as explained by Mr. Hawes, are chiefly composed of nitrates, phosphates, and potash, all of which are taken up in solution, carbon being taken in by the leaves where it goes through a form of manufacture, after which it returns to the different parts of the plants. Natural fertilisation was dealt with at some length, as was also vegetated reproduction altogether. The meeting was a highly interesting one. It is to be hoped that gardeners in general will realise the value of botany, and utilise their spare time in increasing their knowledge in respect to the botanical part of horticulture. A hearty vote of thanks was proposed by Mr. J. N. Bark, seconded by Mr. Herbert, closed the meeting.

BOURNEMOUTH AND DISTRICT GARDENERS' ASSOCIATION.

THE meeting held recently at the Avenue Restaurant was presided over by Mr. F. W. George, Thornleigh Gardens, and Mr. A. King of the Parkstone Nurseries exhibited some exceptionally well-grown plants of *Schizanthus wisoni*, also pots of *Mignonette* and *St. Brigid Anemones*, and gave a practical lecture on their cultivation. A good discussion followed, and Mr. King received the best thanks of the meeting for the able way in which he had dealt with his subject, also for the plants exhibited.

BATH GARDENERS' ASSOCIATION.

THE last monthly meeting of the Bath and District Gardeners' Mutual Improvement Association was held at the Foresters' Hall, Mr. W. F. Cooling in the chair. Mr. F. W. E. Shrivell, F.L.S., F.R.H.S., of Tonbridge, who was to give his lecture on "Up-to-Date Manuring," was also present. The prizes were awarded as follows:—For both Orchids and vase of cut flowers Mr. W. Tanser, gardener to Mr. R. B. Cater, was first. Not for competition exhibits were from Messrs. Cooling and Sons, collection of flowering shrubs in pots, and from Mr. R. B. Cater. Mr. Milburn, referring to the *Magnolias* shown by Messrs. Cooling and Sons, said that Mr. Truckle had spoken to him about the difficulty of growing *Magnolias* in Twerton, owing to the cold soil. He thought it was more due to the time when the plants were sown than the reason stated. They had had some very good ones at the park. Mr. Edwin Ponter was elected a vice-president. Clevedon was suggested for the summer outing, but a decision upon the matter was deferred until the next meeting. The committee of the association entertained Mr. Shrivell to supper at the Full Moon Hotel after the meeting.

CHESTER PAXTON SOCIETY'S SPRING SHOW.

THE fourth annual exhibition of spring flowers was held in the Town Hall on Tuesday and Wednesday of last week, the opening ceremony in connexion with the same being performed by Her Grace Katharine Duchess of Westminster. The collections of cut Daffodils were probably one of the largest ever staged at this society's shows, the collections sent by Mr. Hugh Aldersey of Aldersey Hall and Messrs. Dicksons, Limited, being particularly fine, and both of which were awarded the society's medals. His Grace the Duke of Westminster (gardener, Mr. N. F. Barnes) staged an attractive exhibit, which included about forty dishes of home-grown Apples, which were particularly interesting, as was also a collection of *Malmaison Carnations*. The president of the society, Major MacGillycuddy, J.P. (gardener, Mr. E. Stubbs), put up what proved to be the most extensive collection, and included some remarkably fine *Callas* and *Azaleas*, as well as a collection of choice Daffodils, which included several of the newer sorts. An interesting stand of *Storrie's* strain of ornamental Kale was also staged by Mr. Stubbs, which was awarded a cultural certificate, his other exhibits gaining a silver medal.

The exhibit sent by Dr. Mules of Gresford was quite unique in its way, and included many choice and rare species of hardy *Primulas*, *Narcissus*, and other spring harbingers. Messrs. Sutton and Sons of Reading put up an admirably arranged stand of *Cinerarias*, embracing the finest forms of both the *stellata* and *hybrida* types. This covered a space of 130 feet, and proved to be most attractive. The judges unanimously awarded this a silver medal as well as a cultural certificate.

Messrs. McHattie and Co. staged a choice lot of named *Hyacinths*. Other exhibitors included Mr. T. Gibbons Frost, Mollington, Banastre (gardener, Mr. T. Gilbert); Mr. J. M. Frost, Upton Lawn (gardener, Mr. W. Seddon);

Mr. J. Garrett Frost, Boughton Hall (gardener, Mr. J. Clark); Mr. Tyrer, Plas Newton (gardener, Mr. A. Ellams); Mrs. Townsend Currie, Christleton Hall (gardener, Mr. J. Weaver); Miss Humberston, Newton Hall (gardener, Mr. R. Wakefield), &c.

HORTICULTURAL SOCIETIES' SCHEDULES.

SHEFFIELD.—The Sheffield Floral and Horticultural Society will hold their sixth annual exhibition of Roses, groups, flowers, fruits, and vegetables on Saturday, August 9, in the grounds of Holly Court, Eccleshall, Sheffield (by kind permission of F. A. Kelley, Esq., J.P.). The secretary is Mr. W. Lewendon, 93, Neill Road, Sheffield.

Cardiff and District Chrysanthemum.—The show of this society will be held in the Park Hall, Cardiff, on Wednesday and Thursday, November 8 and 9. Schedules may be had from Mr. H. Gillett, 66, Woodville Road, Cardiff. No less than seven challenge cups and a silver hot-water jug are offered for competition in the various classes.

Cardiff and County Horticultural.—The seventeenth annual flower show will be held on Wednesday and Thursday, July 26 and 27, in the Sophia Gardens, Cardiff (by kind permission of the Marquis of Eute). Full particulars of the classes may be had from Mr. Gillett.

Weybridge and District Horticultural.—On Thursday, July 6, in the Old Palace Gardens, Weybridge, the seventh annual summer exhibition of plants, flowers, fruits, and vegetables will be held. The seventh annual autumn show will be held on Thursday, November 2, in the Holstein Hall, Weybridge. The secretary is Mr. C. Whitlock, The Gardens, Fir Grange.

REDHILL AND REIGATE GARDENERS' ASSOCIATION.

THROUGH the kind invitation of Mr. A. Trower, the members of this association, with their wives, were afforded the pleasure of seeing the work which has been so ably done in naturalising bulbs at Wiggle, recently. A good number were present, and the general comment was that professional gardeners, like the company that was there, could find many ideas to copy, and that if they do not stick well to their task, amateurs with the enthusiasm which Mr. A. Trower possesses will—at any rate, in some things—beat them at their own game. The picture now to be seen at Wiggle is one that would not easily be forgotten, and it illustrates very forcibly what the owners of comparatively small domains may accomplish. Much could and should be written on the work Mr. Trower is so ably doing, but suffice to say in this report that every member present was more than delighted with the show, and the fine prospects of other forms which will follow during the coming months to make features that all lovers of flowers in this neighbourhood should endeavour to see. After a thorough inspection of the glorious sight Mr. Trower most kindly entertained the company with refreshments.

DAFFODIL SHOW AT CARDIFF.

THE Glamorgan Daffodil and Spring Flower Society, which held its annual show in Cardiff recently, received every encouragement to continue a venture which had birth at Bridgend last year. At the first show the entries numbered some 175, but at the exhibition which was opened at the Cardiff Drill Hall not only had this number been very nearly doubled, reaching over 330, but judges spoke of a considerable advance in the quality of the blooms. Lord Tredegar, who is president of the society, was present during the afternoon.

One of the prettiest features of the show was the class for *Rhododendrons*, where Sir John Llewelyn's blooms carried away the first award. The class for alpine plants was one of the best, but the strongest was that for Daffodils and *Narcissus* in bowls. Mrs. Moore-Gwyn was placed first here, the second prize going to Mrs. Mackintosh. In an excellent class for *Primulas*, Sir John Llewelyn was again successful, and there was a very fine show of *Azaleas*. Prominent among a series of honorary exhibits from professional growers was a large group of *Roses*, *Hyacinths*, *Polyanthuses*, *Azaleas*, and other flowers from Mr. William Treseder, Cardiff, and to this the committee awarded a gold medal; while another award of merit went to General Lee's gardener for an exhibit of *Cinerarias*. Mr. Cave and Mr. F. D. Williams also supplied interesting stands of seedlings.

The chief prize-winners are given below:

CUT BLOOMS—DAFFODILS.

Daffodils, representing the three groups, *Magni-coronati*, *Medio-coronati*, and *Parvi-coronati*: First, Mrs. Williams, Miskin; second, Mrs. Mackintosh; third, Lady Windsor.

Single bloom of *Magni-coronati*: First, Sir John Llewelyn; second, Lady Price-Fothergill; third, Mr. P. D. Williams.

Single bloom of *Medio-coronati*: First, Mr. P. D. Williams; second, Lady Price-Fothergill; third, Sir John Llewelyn.

Single bloom of *Parvi-coronati*: First, Mr. P. D. Williams; second, Sir John Llewelyn; equal third, Miss Doris Vaughan, Mrs. Williams, and Messrs. Stokes.

Collection of Daffodils, staged in three groups (for members only): First (challenge cup, presented by Miss Talbot), Lady Windsor; second, Mrs. Mackintosh; third, Mrs. Williams, Miskin.

Twelve varieties of Daffodils (members who do not employ regular gardeners): First, Miss Maud Llewellyn; equal second, Mrs. Booker and Mrs. Gerald Bruce.

Collection of Daffodils, representing the three groups, three blooms of each (Glamorgan and Monmouthshire

only): First (silver cup, given by Lord Tredegar), Lady Windsor; second, Mrs. Charles Williams; third, Mrs. Moore-Gwyn.

Collection of Daffodils staged in three groups: First, Lady Windsor; second, Miss Maud Llewellyn; third, Mr. S. Colville.

Three distinct varieties of *Polyanthus Narcissus*: First, Mrs. Brain; second, Lady Windsor.

Three varieties of double trumpet and double incomparabilis: First, Lady Windsor; second, Mrs. Crompton-Roberts.

Vase or bowl of Daffodils, arranged for effect: First, Mrs. Moore-Gwyn; second, Mrs. Mackintosh; third, Lady Price-Fothergill.

Basket of Daffodils, arranged for effect: First, Mrs. Moore-Gwyn; second, Miss Dorothy Llewellyn; third, Lady Price-Fothergill.

There were many classes for spring flowers also.

CROYDON SPRING FLOWER SHOW.

A VERY successful show of spring flowers was opened in the Art Gallery, Park Lane, on a recent Wednesday under the auspices of the Croydon Horticultural Mutual Improvement Society. The object of the society is an admirable one—to promote a love of horticulture among the masses. The show is an annual event, and, as usual, no prizes were offered, the exhibitors gaining no monetary benefit whatever. It was, therefore, only fitting that the views of the promoters should be justified. Unfortunately, the weather was not favourable, so, therefore, it was not surprising that the attendance—admission was free to all—was not a record one, as it deserved to be. The gallery was one mass of bloom, and the flowers were arranged on benches round the side and up the centre. The arrangement of the groups was very artistic, and the exhibitors were well rewarded by the result of their efforts. Mr. T. Butcher, of George Street and South Norwood, displayed an enchantingly effective group, the most prominent features being a shower bouquet and a basket of flowers. Mr. Frank Lloyd, of Coombe House, had two very fine groups on show. One, consisting of a mass of flowering shrubs and bulbs, was arranged with marked ability by his gardener, Mr. M. E. Mills, who was also responsible for some exhibits of alpine flowers in pots. Mr. J. R. Box and Messrs. John R. Box and Co. also sent exhibits of alpine and *Narcissus*, including *Van Waveren's Giant*, respectively. Mr. J. Flice, of 27, Handcroft Road, staged a collection of *Forget-me-nots*, bulbs, and *Auriculas*, which were much admired, as also were the *Primula obconica* and *Clinanthus Dampieri*, sent by Mr. R. A. Laing, of Shirley Hyatt, Radcliffe Road, and staged by Mr. B. Accock, his gardener. Messrs. Cheal and Son, of Crawley, were represented by a very fine collection of alpine plants and Daffodils. The uses to which a fireplace can be put in the summer months was clearly displayed by Mr. J. Gregory, whose decorated fireplace was a feature of the show.

Over forty varieties of *Hyacinths*, together with *Narcissus*, appeared on Messrs. E. W. and S. Rogers' bench, quite a feature of which was the range of colours. A very imposing collection of Orchids was contributed by Mr. F. W. A. Radford, of Southernhurst, Park Hill Road, through his gardener, Mr. T. Pedley. The most predominant bloom was *Cymbidium lowianum*. A miscellaneous group of plants was exhibited by Mr. Bye, on behalf of Mr. Wickham Noakes, of Selsdon Park, and included some very fine *Amaryllis* and Orchids. Mr. J. Pascall, of Ambleside, Addiscombe Road, showed some splendid *Cinerarias* (gardener, A. Edwards), while Mr. G. Curling, of Elgin House, Addiscombe, through Mr. W. Bentley, sent some very pretty plants. Other exhibits were contributed by Mr. F. R. Docking, Grafton House, Sydenham Road (gardener, Mr. D. J. Ricketts); Mr. J. J. Macdonald, of Howard Road, South Norwood; whilst Mr. T. G. Challis, of 113, Oval Road, an unemployed jobbing blacksmith, had on view a very unique flower stand, made by himself, and which was for sale, representing a snake in the grass, all of which was made of iron and steel. Mr. Boshier, the popular hon. secretary of the society, is to be heartily congratulated on the success achieved, principally through his untiring efforts.

BROUGHTY FERRY HORTICULTURAL ASSOCIATION.

THE usual monthly meeting of the Broughty Ferry Horticultural Association was held there on the evening of Tuesday, the 18th ult., when there was a good attendance, presided over by Mr. James Slater, president of the association. An excellent paper on the *Eucharis* was given by Mr. John Carmichael, Rosely Gardens, Arbroath, Forfarshire, and was followed with close attention. Mr. Carmichael dealt with his subject in a most practical manner, giving full details of the cultural and other treatment he considered most suitable for this favourite and valuable plant. Mr. Carmichael was heartily thanked for his admirable paper.

SHIRLEY (SOUTHAMPTON) GARDENERS' ASSOCIATION.

NEARLY fifty members were present at the usual monthly meeting held recently in the Parish Room, High Street, Shirley. The evening was devoted to a debate on "Carpet Bedding." Mr. Risbridger of The Gardens, Rownham Mount, opened the debate with a speech in favour of the system, and he was followed by Mr. Wilcox of The Gardens, Alderbrook House, in opposition. An energetic discussion followed, to which Mr. Cleverley, Mr. C. J. Porter, and others contributed. There were seven exhibits of Daffodils in competition, those shown by Mr. Wilcox and Mr. Cooke being especially noteworthy.

BATH GARDENERS' SOCIETY.

THE fortnightly meeting of the above society was held on the 10th inst. There was a large gathering of members, and the exhibits were of the usual high quality. Mr. O. G. McLaren read a practical paper on "Zonal Geraniums." He gave some interesting details of this well-known and valuable plant for winter flowering, of which he had an excellent exhibit on the table. It gave rise to a good discussion among the members. A hearty vote of thanks was given to Mr. O. G. McLaren. T. P.

FORTHCOMING SHOWS.

May 9.—Royal Horticultural Society's Meeting.
May 11.—Annual Dinner of the Royal Gardeners' Orphan Fund, Hotel Cecil.
May 17.—Royal Botanic Society's Show, Regent's Park.
May 23.—Royal Horticultural Society's Meeting (Tulip Show).
May 24.—Royal Caledonian Horticultural Show at Edinburgh (two days); York Society of Florists' Show.
May 30.—Royal Horticultural Society's Temple Show (three days); Bath and West of England Show (five days).
June 1.—Rhododendron Exhibition, Botanic Gardens, Regent's Park, throughout the month.
June 7.—Royal Botanic Society's Show (three days).
June 16.—Gardeners' Royal Benevolent Institution Annual Dinner.
June 20.—Royal Horticultural Society's Meeting; Satterthill Flower Show.
June 21.—York Gala (three days).
June 27.—Oxford Commemoration Show.
June 28.—Southampton Rose Show (two days); Richmond (Surrey) Horticultural Show.
June 29.—Colchester Horticultural Show.
July 4.—Royal Horticultural Society's Meeting; National Sweet Pea Society's Show; Sutton Rose Show.
July 5.—Tunbridge Wells, Hanley (two days), and Croydon Flower Shows.
July 6.—National Rose Society's Show; Sidcup Flower Show.
July 11.—Wolverhampton Floral Fête (three days).
July 13.—Woodbridge Horticultural Show.
July 18.—Royal Horticultural Society's Meeting (Carnation and Picotee Show); National Rose Show at Gloucester.
July 19.—Newcastle-on-Tyne Flower Show (three days); York Florists' Show.
July 25.—Tibshelf Horticultural Show.
July 26.—Southampton Carnation Show and Cardiff Flower Show (two days).
August 1.—Royal Horticultural Society's Meeting.
August 2.—Chesterfield Horticultural Show.
August 7.—Lichfield, Wells, Mansfield, Grantham, and Ilkeston Flower Shows.

DAFFODIL NOTES.

APRIL 15.

SINCE my last notes were penned the weather has undergone a change for the worse, and, instead of the early season which all had been led to anticipate, the majority of mid-season flowers will be in bloom about their normal time. The question has been raised as to whether the committee of the Midland Daffodil Society were wise in bringing their show a week forward, but, as one who voted for the alteration of the date, I can only say that had the extremely warm weather which we experienced during the last fortnight of March continued, only the very latest flowers would have been available for the 27th ult., the original date. Another point to be borne in mind is that Easter week is rather an awkward time for an exhibition of such importance, many people being absent from home.

Ever since April came in the weather has been most treacherous—frost, snow, hail, rain, and wind alternating, while the sun has been almost entirely absent. The effect of this cold and gloom has been such that some of my flowers which were almost on the point of opening stood perfectly still for days together. On the night of the 7th ult. we had quite a heavy fall of snow, and it was interesting to observe what flowers stood the ordeal best. Some varieties are so easily spoilt, and one that deserves a bad mark on this account is C. J. Backhouse. For a very brief period it unquestionably forms a beautiful piece of colour in the garden, but few red-cupped varieties stand either heat or wet, and this one is certainly no exception. *Stella superba* is a fine garden plant, and will stand a great deal of bad weather without injury. Others that stand well are *Duchess of Westminster*, *Queen of Spain*, *Golden Spur*, *Mrs. Thompson*, *Emperor*, *Victoria*, and the

hybrids with *Grande* blood, such as *Resolute* and *Strongbow*. I am very pleased with *Resolute*, as it is a fine flower to last, and its drooping habit prevents it from getting spoilt by the weather. In order to appreciate it thoroughly it should be planted on rockwork where its flowers may be seen from below. A great many people, I know, dislike these flowers with a drooping habit, but this is a mistake, as I have myself found out. Quite one of the loveliest of all Mr. Engleheart's hybrids, i.e., *Waterwitch*, is of pendant habit, and this in no way detracts from its beauty but rather enhances it.

At the Royal Horticultural Society's meeting on the 11th ult. there were several very fine collections, and some high-class seedlings were staged. The two groups which claimed the most attention were those of Mr. Engleheart and Mr. Dawson. In the former's stand the most striking flowers were as follows:—

Vulcan.—An extremely distinct and refined flower belonging to the Engleheartii section. The large flattened cup is of an intense orange-red, almost approaching Firebrand in colour. The creamy yellow overlapping segments are Almond-shaped, and have a slight reflexing habit. This is quite one of the best flowers we have seen.

Charlemagne.—This flower also attracted a great deal of attention. It is an immense yellow incomparabilis, over 5 inches across, and of excellent form. The bright yellow crown is 2 inches across and beautifully frilled at the mouth, while the huge segments are clear yellow.

Some incomparabilis forms, raised from M. J. Berkeley, were interesting flowers, and a neat, rich yellow Ajax of the same origin was very striking.

Limonia is a glorified Frank Miles, but perhaps a little lighter in colour.

Electra, a soft yellow incomparabilis 3 inches across, is a refined flower of good form. The segments are a rich creamy yellow, and the short crown bright yellow.

A pretty but delicate looking flower is *Pink Pearl*, with starry white segments and a cup of salmon pink. Other named flowers were *Indomitable*, a bold incomparabilis; *Dubloon* (poeticus ornatus x telamonius plenus), a very fine double; *Lancer*, *Glitter*, and *Scarletta*, all red cups; and such poeticus varieties as *Laureate*, *Chaucer*, and *Virgil*. In Mr. Dawson's stand the premier flower was

Buttercup, and it is no exaggeration to say that this variety—which had been previously exhibited at Truro—attracted the attention of all Daffodil lovers. The flower is happily named, for its colour is quite a true Buttercup yellow. A seedling from Emperor crossed with N. odoratus rugulosus, it exhales a delicious fragrance. The segments are the same length as the trumpet, and the whole flower is of a rich deep yellow. It is an Engleheart seedling, and one of the most unique flowers yet raised.

Peveril.—An exquisite flower of the very highest quality, with a daintily fringed cup as intense in colour as that of Firebrand, but considerably wider. In comparison with the last named its pure white, Almond-shaped perianth segments, which are of slightly reflexing habit, are clearly superior. The size of the flower is 2½ inches.

Bernadino.—A wonderful incomparabilis, and quite a break in colour. The long, pure white segments are broad and overlapping. The crown is 1½ inches across, spreading and frilled like Leedsi Minnie Hume. The base of the crown is bright primrose yellow, changing to deep orange, and fading to a paler shade at the frilled edge of the mouth. The size of the flower is just over 3½ inches.

Viking.—This is one of those chaste white trumpet Daffodils of triandrus origin of which we seem to be now getting a considerable number. The chief feature of the flower is its delicate lemon-coloured trumpet, which is funnel-shaped and 2 inches long. The large pointed segments

are of a slightly drooping character, and in colour palest lemon white. A shapely flower, and very attractive.

Planet.—A large and refined Burbidgei, with well-set, creamy yellow segments and a crinkled yellow cup faintly margined with orange.

Wagtail is a very dainty and symmetrical incomparabilis, with a solid, overlapping white perianth and a long, clear yellow cup.

Will-o'-the-Wisp is a small but nicely proportioned flower of the Parvi group, with starry, pointed petals. The cup is an attractive shade of bright orange with a citron green eye.

Lilian.—An extremely neat Burbidgei of lasting character. The creamy white, Almond-shaped segments, though thin, are firm and overlapping. Small, light orange cup, edged deep orange. Raised by Mr. Dawson.

Greeneye is a very distinct flower, with creamy, overlapping perianth segments, and a spreading saucer-shaped cup. This is bright lemon yellow, faintly edged with orange, and set off by a remarkably deep green eye.

Other good things noted in this exhibit were *Pilgrim*, a flower of which measured 4½ inches across, *Dawn* (poeticus x triandrus), *Homespun*, *Beacon*, *Magpie*, *Penguin*, *Stonechat*, and *Tennyson*, a stately poeticus.

A little group comprising eighteen seedlings, all of the very highest quality, came from Mrs. R. O. Backhouse, Sutton Court, Hereford. The series of hybrids raised from Weardale Perfection and Moonbeam were faultless flowers of rare beauty, even surpassing the exquisite White Queen. From amongst these the Narcissus committee selected

Lord Kitchener for an award of merit, which was unanimously granted. This flower is a marvel of refinement, tone, and modelling. The crown opens a bright lemon yellow, gradually fading to a paler shade. It is 1½ inches across, and daintily frilled at the mouth. The overlapping perianth segments are palest lemon white, and perfect in form. Another giant Leedsi from the same cross was

Snowdon.—This differed from the previous variety in possessing an almost white crown.

Dewdrop, *Zingara*, and *Mohican*, all of which have previously gained an award of merit, were also to be seen in this exhibit.

In Miss Currey's group, which contained many lovely things, none surpassed a new variety named

Radiance.—This is an Engleheart seedling of an entirely new shade of colouring, and belongs to the incomparabilis group. The crown is a clear rosy orange, and the cream-coloured perianth segments are slightly drooping. This is one of the most delightful colours yet attained in Narcissi.

Two splendid groups came from Messrs. Barr and Sons and Messrs. Pope respectively. The former gained an award of merit for

Alice Knights, a very early white trumpet Daffodil which had been well shown at the previous meeting (March 28). The committee are endeavouring to encourage the introduction of early flowers, and this variety secured an award solely on this account. The perianth is white and slightly twisted, while the trumpet is creamy white and has a prettily frilled open mouth. Quite recently I saw this variety in Messrs. Barr's nursery, and was greatly struck with its vigour. Single bulbs two years planted had developed into large clumps. The plant grows about 1 foot high, and one of its parents was *Narcissus cernuus*, which to a great extent accounts for the lasting character of the flowers.

In Messrs. Pope and Son's stand one flower stood out before all others. This was

King's Norton, which was described in THE GARDEN last year. It is a most majestic flower of the largest size, and as exhibited was quite free from any reproach of coarseness. The most apt description of it would be a glorified Emperor. On this occasion it received an unanimous first-class certificate.

Kidderminster.

ARTHUR R. GOODWIN.

THE KITCHEN GARDEN.

CLIMBING FRENCH BEANS.

WHILST the term French as commonly applied to dwarf Kidney Beans seems to be a misnomer, as they are in no special sense French, the appellation has become a common one, and doubtless will survive. Whilst these Beans have been generally grown in all gardens as a useful summer vegetable, there can be no doubt that the introduction of the climbing section or sports from these dwarf Beans has done much to minimise their growth, as a good row of such a variety as the climbing Canadian Wonder, when pods are kept hard gathered, gives as much produce as can be got from probably three successive sowings of the dwarf stock or variety; but these climbing Beans, as with Scarlet Runners, must have good culture, ample depth, plenty of manure, thin sowing, and tall stakes to support them to enable cropping to run over several weeks. Beans do not require nitrogenous manures. As a fact, it is only when such manure is liberally applied that good growth and heavy crops result, as all gardeners know; hence to have such strong growth a trench 20 inches wide should be opened, the top soil thrown out on to one side, the bottom soil on to the other. If the latter be poor and infertile, let it remain out altogether. Break up the bottom with a fork, throw in the top soil, add to that, and well mix with it a heavy dressing of half-rotten manure, then fork in the top soil from the sides of the trench, mixing more manure with that, then tread down the soil gently, letting it settle a day or two before sowing the Beans. That should be done either in one broad drill, 2 inches deep, or in two ordinary drills drawn side by side, the Beans being placed in them 6 inches apart. Growth will be quick and robust, and can be kept so in dry weather with the aid of frequent waterings and a manure mulch. Dwarf growing varieties do not pay for such trouble, but their cropping is relatively short. A. D.

A LATE BRUSSELS SPROUT—THE BULLET.

WE finished our last Sprouts at the end of April, which is not a bad record for this vegetable. The variety is the Bullet, which was sent out a few seasons ago by Messrs. Cutbush, Highgate. It is remarkable for its close, hard bullet-like growth, with a small compact top or head, and the sprouts firmly packed to the base of the stem. These are of splendid quality when cooked. For private consumption I fail to see the advantage of large coarse sprouts. With regard to the quantity purchased they do not equal those that are smaller and closer. It is desirable to sow seed of the Bullet on an open warm border early in the spring for latest use the next season. Sow thinly, and when the plants are quite small they are placed in their permanent quarters. A catch crop of Spinach or Lettuce is grown between. This is cleared before the plants require the room, and this lot of Sprouts give the supply through February and March. They are always liked owing to their firm compact growth. It is one of the latest to open out if grown on an exposed border in well cultivated soil. G. WYTHES.

LATE NOTES.

Pelargoniums in market.—At the present time the well-flowered plants of zonal Pelargoniums in $\frac{1}{2}$ -inch pots are very showy. We now have a number of varieties. F. V. Raspail and the improved form of it are the most conspicuous. Some growers who grow for bloom during the winter leave off gathering when other flowers are more plentiful, and when the plants

are well in bloom bring them to market. These are showy and larger than those grown expressly for spring trade. King of Denmark (syn. Beaute Poitevine) is still a favourite; some well-flowered plants of Mrs. Lawrence (the new salmon which was so well shown at Holland House last year); Hermoine is still a favourite white; and Ville de Poitiers a good light scarlet. Of singles Hall Caine is fine, King Edward VII., Mrs. Chas. Pearson, and several other newer sorts are seen. Among Ivy-leaved varieties we only have Mme. Crousse and Galilee at present. These useful sorts are represented by well-flowered plants, and they are now in demand for decorative work as well as for the garden and window boxes. Show and Regal varieties are now plentiful, but they do not sell so readily as the other sections. A good many of the plants are rather tall and thin at the bottoms. We see some very good plants, but on an average they are not so good as when Messrs. Hayes, Beckwith, and Brown were competing one against the other.

"Chelsea Window Gardening."

This little book was written many years ago to assist friends who wished to encourage gardening in the poorest parts of Chelsea. A third edition has now been issued in the hope that it may help the Metropolitan Public Gardens Association in its efforts to brighten London life. Besides full cultural details, some most useful lists of plants for town windows are given. The author is L. M. Forster. The booklet may be had for 2d. from Fisher Unwin.

A Daffodil ballot.—At the Birmingham Daffodil show, held on the 18th and 19th ult., a very interesting ballot was taken with the idea of trying to find out which were the most popular varieties with the general public. With this end in view fifty varieties of Daffodils were set up under numbers instead of names. The visitors were asked to mark on the card twelve which in their opinion were the best. Altogether 242 persons voted. The votes each received were as follows: Mme. de Graaff, 157; Gloria Mundi, 142; Crown Prince, 139; Emperor, 128; C. J. Backhouse, 122; Katherine Spurrell, 121; Barrii conspicuus, 108; Glory of Leiden, 100; Ornatius, 100; Duchess of Westminster, 94; Flora Wilson, 89; Sensation, 80; Sir Watkin, 80; Mme. Plomp, 79; Titan, 77; Mrs. Langtry, 72; Palmerston, 62; Duchess of Westminster, 57; M. J. Berkeley, 55; Falstaff, 52; Golden Bell, 49; Horsfieldii, 48; Lulworth, 47; Beauty, 41; Autocrat, 41; Princess Mary, 41; Campenelle Jonquils, 40; Incomp. Plenus, 38; J. B. M. Camm, 38; Stella, 38; Whitewell (Seedling), 34; P. R. Barr, 34; Grand Duchess, 34; Orange Phoenix, 34; Maurice Vilmorin, 33; Semi-partitus, 29; M. de Graaff, 29; Seedling (unknown), 23; W. Goldring, 22; Cynosure, 21; Nelsoni Major, 21; Frank Miles, 19; Princess Mary, 18; Portia, 18; Princes, 14; Orpheus, 14; Mary, 13; Baroness Heath, 9; Hogarth, 9; Queen Bess, 6.

Spring flowers at Forest Hill.

The greenhouses in the nurseries of Messrs. Carter and Co. at Forest Hill were bright with Primulas and Cinerarias when recently we visited them. Although the Primula flowers had begun to fade at the touch of the hybridist's brush and the seed-pods to develop, many varieties were hardly past their best, and we were enabled to form an opinion of their merits. Several houses were filled with batches of Primulas, the varieties being kept distinct. There were large quantities of each sort, and in the mass they made a brilliant show. The names that Messrs. Carter give to their strains of Primulas are self-descriptive, and it may be said are faithful expressions of the characteristics of the flowers. For instance, there are Holborn Blue, Holborn Scarlet, Holborn Coral, Holborn Crested Pink, Holborn Carmine, and Ruby. King Edward VII., a fine white; Princess May, a beautiful pink; Duchess, white, with red centre; and Hercules, magenta, are specially noteworthy sorts. These and many charming stellata forms made the houses quite

brilliant with colour. We were shown Cinerarias in some strikingly rich shades and with large, well-formed flowers—representatives of a strain it would be hard to beat. There was also a houseful of Calceolarias in vigorous health, their large, deep green leaves giving good promise of a harvest of flowers to come. Doubtless they will be on view at the Temple show. Messrs. Carter were among the first to exhibit the quaint pigmy trees imported from Japan, and they have always kept a large number of them. Among the most interesting we saw was an Azalea, said to be 200 years old, smothered with rosy scarlet flowers.

"The Culture of Sweet Peas."

This is the third edition of a very useful little handbook by the founder of the National Sweet Pea Society. It brings the best and most reliable advice within the reach of every one interested. The pamphlet forms No. 1 of a series of cheap popular handbooks edited by Edward Owen Greening. The editor adds some notes on "Recent Developments of Sweet Peas," and the Hon. H. A. Stanhope notes on "Everlasting Peas." There are also some detailed "Hints on Growing Sweet Peas," by William Smith, a practical cultivator of the popular flowers. The handbook runs to thirty-two pages, is printed on good paper, and illustrated on every page. By Richard Dean, V.M.H., &c. London: Agricultural and Horticultural Association. Price 1d.

Muscari azureum robustum.

In a recent number of THE GARDEN I stated that a form of Hyacinthus amethystinus was blooming in March in Mr. Bilney's garden at Weybridge. I find that I have confounded this with the above-mentioned Muscari, which was, I think, formerly listed as Hyacinthus azureum. I see that Mr. Barr uses both names for this species. I suppose that Mr. Bilney told me that it was Hyacinthus azureum. The Grape Hyacinths are very pretty, and when grown in masses are very effective, the finest being undoubtedly Heavenly Blue, which is extremely rich in colour. All the species are good for woodland planting, as they produce a quantity of seeds, which come up naturally. About fifteen years ago a single plant came to me in an accidental way, and I have now nearly 200 bulbs that have mainly come from self-sown seeds, some of them blooming in the Box edging.—J. CORNHILL.

The Henry Eckford Testimonial.

Owing to the pressure upon space in the horticultural Press, consequent upon the Easter holidays, it has been impossible to secure publicity for the weekly donations to this fund. In the present normal circumstances it is hoped that regularity of publication will not be again interrupted. The subscriptions received up to Saturday night, April 30, are as follow:

	Shgs.		Shgs.
Previously acknow-		Mr. R. B. Leach	3
ledged	277	Mr. J. F. McLeod	5
Mr. Ernest Amies	23	Mr. H. C. W. Moorhouse	1
Mr. A. E. Anker	2	Mr. Conway Morgan	1
Mr. E. Beckett	5	Mr. E. Moxham	14
Mr. Jas. Broome	5	Miss Nash	1
Miss B. F. M. Doyne	5	Mrs. Walter Perse	2
Mr. W. W. Eason	23	Redhill Gardeners' Assoc.	
Mr. F. Evans	1	clation	14
Mr. H. Forder	2	Mr. H. Rogers	1
Mr. W. Fyfe	2	Mr. C. Sheppard	5
Mr. E. Owen Greening	5	Mr. G. Stanton	5
The Earl of Harrington, K.T.	20	Mr. Henry Turner	1
Miss A. F. Harwood	1	Mrs. Henry Turner	1
Joe and Violet	2	Mr. R. Turvey	2
Mr. V. B. Johnstone	5	Messrs. Jas. Veitch and	
Mr. Thos. Jones	5	Sons, Limited	42
		J. W. W.	1

ERRATUM.—MELANTHUS MAJOR FLOWERING.

In your issue dated the 22nd ult. appears on page 232 a paragraph headed "Melianthus major flowering," at its end is printed "Webb and Sons, Wordsley, Stourbridge." This is an error, due, no doubt, to an oversight, as the paragraph referred to was communicated by us.—CLIBRANS, Altrincham, Cheshire.

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN

No. 1747.—VOL. LXVII.

MAY 13, 1905.

OWN ROOT ROSES.

FROM a correspondent in Lincoln we have received the following letter: "Your correspondent Mr. Sydney Spalding asks others to give their experience of own root Roses. I regret to say I have reluctantly come to the conclusion, after eight years' trial, that Teas, Hybrid Teas, and Hybrid Perpetuals are no use on their own roots. I have taken every year cuttings of the above, and for four years made very careful notes. A large percentage of the cuttings live and look very healthy for two years, after which by degrees they dwindle away; odd plants do well, but not a sufficient number to make this mode of propagation useful even to an amateur. My favourite climber, Rêve d'Or, I think I may say is an exception. I have now in my garden very fair plants on their own roots of Camoens, General Jacqueminot, Francisca Krüger, Baron Taylor, Souv. de President Carnot, Kaiserin Augusta Victoria, Grace Darling, Margaret Dickson, and W. A. Richardson, but these are the exceptions spoken of above.

"The following are good own root Roses, and make splendid plants in every way satisfactory; any of the old-fashioned large sweet scented pink Roses from very old gardens, Splendens, Félicité Perpetué, and Thoresbyana or Bennett's Seedling, all three Ayrshires, Psyche and Leuchtstern, both Polyanthas, the Common China, and White Pet. No doubt there are many others, but I am only writing from personal experience. Morletti and Dorothy Perkins will also, I think, be good own root Roses, but as yet mine are only one year old, and a four year old plant is the true test.

"My method is as follows: Take the cuttings in October of well-ripened young wood, plant firmly three-fourths of their length in the ground in rows, with plenty of sand at the base. The cutting bed is partially shaded. The following October all are replanted in fresh ground, and allowed a little more space. A large proportion have nice roots their first year, and generally the second year, but after this the Teas, Hybrid Teas, and Hybrid Perpetuals gradually dwindle away."

THE ANNALS OF THE LITTLE RED HOUSE.—I.

It has occurred to me that, in the face of the fact that half the world is at this moment searching for "a cottage in the country," with an acre or two of garden, within convenient reach of London, the experiences, happy and otherwise, of the successful finder of such a little haven of rest might be of use and interest to those still beginning the quest, and still more to those who, having found their paradise, have begun the often very necessary work of re-making and re-ordering the garden.

A few years ago we, like the rest of the world whose business or duties keep them tied to London, became weary of the ever-recurring search after a holiday home, the discussions every summer as to when and where we were to go, and the vexatious debates as to "ways and means." The six weeks' holiday constantly ended in disappointment, the hired house bringing with its tenancy worries and weariness instead of comfort and rest; so we determined on becoming possessed of some little house or cottage with a garden, an hour or so from town. A garden! what delight in the very word! We had been brought up in a garden, reared in a country village, and then for more years than we cared to count, circumstances had deprived us of these rural joys, and we bought our flowers or did without them. But whenever we found ourselves for a few blessed weeks in the country, we gardened, leaving our temporary home the better for many plants and much tending.

Well, one spring day an advertisement in a daily paper caught our eyes: it seemed exactly what we wanted, but, surely, too good to be true—we had been so many "wild goose chases," and had lost entirely any faith in an agent's description; we had already been to inspect dozens of earthly paradises which proved to be entirely without even a possibility. However, the description of the little red house was too much for our strength of mind, and we went to see it. The agent had not exaggerated much; the old-world garden, the orchards, the bleached alleys, the clipped Yew hedges—and in the midst of these charming surroundings the little red house. There was one drawback which at first seemed insuperable—it was quite four miles from a station, and we had no intention, for obvious reasons, of keeping a motor. It is extraordinary, however, if you want a thing very much, how one can convince one's self that a drawback or two does not matter, and, truth to tell, we have never really regretted the distance, bringing as it does immunity from the neighbourhood of

villas, and the blessing of perfectly rural surroundings. Of course, the usual wearisome law business threatened more than once to wreck our cherished schemes, owing to some petty monetary details; but our feminine minds strode triumphant over the barbed wire of the law, and one pouring wet April day we took possession.

I do not think any moment that life can give is more delightful than the new possession of a small place in the country, when it is actually signed, sealed, and delivered, when the last load of the late owner's miserable-looking furniture has disappeared, and when the heap of rubbish which you have been compelled to take at a valuation far beyond its worth or your wishes has been sorted over and distributed. Of course we found that the late occupant had taken away all he could out of the garden, and that the flower borders which had years gone by been the admiration of the neighbourhood for the beauty of their old-world flowers, had been used for the purely practical purposes of market gardening. The kitchen garden had not been stocked, and had also been well stripped of any movable tree or Currant bush, some good Asparagus beds being almost our only assets; so our prospects for the year were not brilliant. Still, there were orchards of Apple trees just budding to blossom, and a fine bed of young Strawberry plants. These had to be weeded very carefully so as not to break up the soil, and were then mulched—which, of course, ought to have been done weeks before. For Gooseberries and Currants and Raspberries we should have to wait with patience for another year.

AUGUSTA DE LACY LACY.
(To be continued.)

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, London.

FANCY PANSIES AND VIOLAS.

Few popular flowers comprise such a wealth of beautiful colour shades as the fancy Pansies of to-day, while in the Violas are represented some of the most delicate. Those sent from Rothsay

by Messrs. Dobbie and Co. serve to emphasise the great value of these flowers, and to show that many beautiful varieties have lately been introduced. We cannot give long descriptions, but for the guidance of those who wish to have in their garden some particularly handsome sorts of fancy Pansies we give the names of a few: Mrs. Sinclair, Mrs. J. Lister, Mrs. Campbell, A. S. Walker, Provost White, R. C. Dickson, Coronation, W. B. Child, Miss A. B. Douglas, Duke of Argyle, and James Stirling. Pansies and Violas thrive remarkably well in the Rothesay nurseries, as the boxful sent to us gave ample proof.

NARCISSI FROM CHESTER.

A box of Narcissi in many beautiful varieties comes from Messrs. Dicksons of Chester. Among them were the following forms:

Elaine.—This has a broad circular perianth of fine substance, short expanded crown, the colour pale ivory.

Gloria Mundi.—Rich yellow perianth, with large expanded cup, stained orange scarlet.

Lulworth.—Pure white perianth, cup bright orange red.

White Lady.—Broad perianth of perfect form, pale canary cup prettily crinkled, a beautiful flower.

Mrs. Camm.—Elegant white perianth, trumpet sulphur white, a lovely flower.

Queen of Spain.—A most distinct and graceful Dufodil, soft clear yellow, gracefully reflexing perianth, trumpet distinct.

Mme. de Graaff.—This ranks as the queen of white trumpet Daffodils, the whole flower being soft pure white.

Albatross.—Large spreading white perianth, cup pale citron-edged orange red, very beautiful.

Commander.—Pale sulphur perianth, yellow cup stained orange red, large bold flower.

LATHYRUS PUBESCENS.

This lovely Pea is from a cool greenhouse, where it has been in flower for several weeks. It is also doing well outside on a wall, but of course is not yet in flower. It is a native of Chili, and is worthy of more general cultivation, being easily raised from seed. Not the least of its merits is its delicious perfume. It also lasts well when cut, remaining fresh for a fortnight.

[A very beautiful flower.—Ed.]

PYRUS NIEDZWETZKYANA.

The above is well worth a place in all good pleasure grounds, both flowers and foliage being distinct and handsome.

[One of the most charming of its race.—Ed.]

IRIS TINGITANA.

This has again flowered well here. Our treatment seems much the same as Mr. Fitzherbert recommends. Here we always have a reserve bed, which is left undisturbed for a season. This bed, if given good treatment, will provide strong bulbs, which, if lifted and given a good rest, will flower the following season. This rest is essential if this beautiful Iris is to be successfully flowered. My practice is, when the foliage dies down, to lift the bulbs and store them in a dry place until their roots begin to push at the base. Then they are planted, and, as a rule, every good-sized bulb flowers. The flowering bed of this season will grow on undisturbed until next year, when it will be lifted and the bulbs stored for rest. That this is the correct treatment is evident, as I have letters from friends who have adopted this method and have been successful. Our beds have sometimes been at the bottom of a south wall, sometimes east, and they have done equally well in either position.—JOHN COUTTS.

[With this note came several flowers of this beautiful Iris.—Ed.]

* * Several contributions have been received for "The Editor's Table," and will be described next week.

PRIZES FOR GARDENERS. MAY.

OPEN TO BOTH PROFESSIONAL AND
AMATEUR GARDENERS.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
will be given for the best answers to the questions
published below.

I.—Name the best twelve distinct Hybrid Tea or Hybrid Perpetual Roses for garden decoration, taking into consideration freedom and length of flowering, and hardness of constitution. Two distinct Roses of each of the six following colours must be selected: White, flesh, yellow or cream, pink, cherry or light red, and scarlet or dark red. Exclude new Roses of 1904-5.

II.—A hedge of Roses is required to form a protection against the north-east wind in a very exposed position. Name the Rose you would select for this purpose, and state method of planting, pruning for first year, and number of plants required to the 10-foot run; when fully grown the hedge should be about 3 feet 6 inches high. The protective quality of the hedge will be the first consideration; freedom of flower and decorative quality the second.

III.—Give the names of six Roses, rapid climbers, best adapted for climbing into old trees, and state method of planting and pruning for first year.

IV.—A sunken lawn, roughly 1,000 square feet in size, well protected from winds and midday sun, and in a generally favourable position, subsoil clayey loam, is to be converted into a Rose garden. Sketch out design of not more than twelve beds and not less than eight, leaving four grass paths—north, south, east, and west—and number beds 1, 2, 3, &c.

V.—Name dwarf Tea Roses for said beds, one variety to each bed. Consideration must be given to contrast in colour and habit of growth of varieties; freedom of flower essential, and no tender varieties should be used.

VI.—A similar list of Hybrid Teas and Hybrid Perpetuals, with similar conditions as the last query.

VII.—A pergola leads from kitchen garden to above Rose garden, 80 feet long, with arches at every 8 feet. Ten distinct Roses are required (two plants to each arch). Give a list of the varieties you suggest as best for the purpose. The summer-flowering Roses may be used sparingly if thought desirable. General effect of whole when in flower must be considered.

FORTHCOMING EVENTS.

May 17.—Royal Botanic Society's Show, Regent's Park.

May 23.—Royal Horticultural Society's Meeting (Tulip Show).

May 30.—Royal Horticultural Society's Temple Show (three days); Bath and West of England Show (five days).

NOTES OF THE WEEK.

Lælio-Cattleya Mrs. Measures.

This new hybrid has just flowered in the collection of Mr. R. H. Measures at the Woodlands, where it was raised. The parents are *Lælia elegans* and *Cattleya gigas*, with the *L. elegans* for the mother plant, and it was on one of Mr. Measures' wonderful *L. e. schilleriana* varieties that the pollen of a beautiful variety of *Cattleya gigas* was placed; hence we have, as might be expected, a really superb hybrid, with sepals and petals wholly pink and white, delicately and exquisitely blended, while the whole of the large front part of the labellum is an intense velvety crimson, with the golden primrose colour at the orifice equal to any of the finest varieties of *C. gigas*. The contrast of the rich crimson and yellow of the labellum, with the pink and white sepals and petals, is delightful.—ARGUTUS.

Fritillaria imperialis (Crown Imperial).

One of the more interesting parts of our garden of late has been a corner devoted to the Crown Imperial. A few years ago we planted about a dozen good bulbs, this number being equally divided between the yellow and orange-red varieties. The bulbs have remained undisturbed since they were first planted, and have increased in number. It is astonishing how little the Crown Imperial is planted, and scarcely a visitor to the garden refrained from asking for the name of the plant that interested them so much. Few subjects in the spring garden grow so quickly. The growths are hardly through the soil before it seems the stout Lily-like stem and foliage begins to show its crown of flowers surmounted with a tuft of foliage. Crown Imperials should not be planted near the dwelling-house, as the growths have an unpleasant smell.—D. B. C.

A new Calceolaria (Jeffery's hybrid).

This plant promises to become most useful for the decoration of the greenhouse, and probably the forerunner of a new strain. The greenhouse herbaceous varieties are one of the parents, the other is known only to the raiser, Mr. John Jefferies of Oxford. From the habit and general appearance of the plants, *C. integrifolia* seems to have played a prominent part. It grows about the same height, but is rather looser in habit, the flowers are slightly larger, leaves double the size, taking more after the herbaceous varieties. At present the colours are not numerous, being yellow, slightly tinted brown, through various shades of brown to the prettiest of all, a rich velvety crimson. The individual flowers are about an inch across. The panicles of flowers are terminal and axillary, and freely produced on long slender stalks. Although it cannot be called the stellata *Calceolaria*, it is in comparison with the herbaceous varieties what the stellata *Cineraria* is to the larger garden forms. The plants at present flowering in No. 4 greenhouse at Kew are 4 feet to 5 feet in height, and the larger ones 3½ feet in diameter. This is the second time of flowering; the cuttings were inserted in the autumn of 1903, so that they are about eighteen months old. After flowering in 5-inch and 6-inch pots last spring the old flower heads were cut off and the plants potted on. During the winter they have been grown in a house with a minimum night temperature of 40° Fahr. A batch of smaller plants rooted last autumn will flower about midsummer. The size of the plants depends on the time of inserting the cuttings. They root readily in a close frame in sandy soil. To form bushy plants take out the points of the shoots two or three times. Several plants flowered in a border outside last summer, showing great promise for bedding. There seems every probability of its being grown freely from seed, as although no seed was saved from the plants themselves, pollen put on the herbaceous varieties has produced plants intermediate in character, the flowers of which are just expanding. This shows the pollen to be fertile.—A. O.

Bullfinches in the garden.—I have read the correspondence about the bullfinch in your valuable paper, but have not noticed anyone recommending that fruit trees should be syringed with paraffin and soft soap in February and March. I have mine done about two or three times every spring, and find it keeps away all bullfinches, &c. I think it undesirable to allow the use of a gun, as all birds, useful and harmful alike, are apt to be killed, apart from the disagreeable noise the gun makes. — A. W. L., *Miserden, Cirencester.*

Hydrangea hortensis and H. japonica.—At Messrs. J. Veitch and Sons' nursery, King's Road, Chelsea, some beautiful blue-flowered Hydrangeas are now to be seen in small examples growing in 4½-inch pots, the flowers of the first-named being of a light blue tint, and the second deep blue. Under ordinary treatment, and grown in the usual mixture of loam and leaf-mould employed in gardens, the flowers of these varieties, that is, the floral envelopes minus the sexual organs, are of a lively pink tint, but afforded a weak solution of alum in water once a week the blue colour takes the place of pink. Are we to understand that *H. japonica* is merely a Japanese garden variety of *H. hortensis*, commonly found in Japanese gardens, and not a species as the name would imply? The growth seems similar, and is not so robust as the Japanese *H. Otaksa*, or has such large heads of flowers. The most complete or entire elimination of the sexual organs of Hydrangeas would account for the stronger growth of *H. Otaksa*. Can any of our readers afford information on this point?—F. M.

Ornamental-leaved Begonias.—These, so far as regards the more or less dull-coloured *B. Rex* varieties, received a decided set back when the hybrids of *B. Veitchii*, *B. Boliensis*, and *B. Pearcei*, the last named with yellow flowers, came into gardens, the so-called tuberous-rooted varieties, now greatly improved in habit, stature, size, and colour of flowers. But that is another story, and so long. My attention was called the other day to a small collection of *Rex Begonias*, presumably of French origin, shown by Mr. H. B. May at Vincent Square, and remarkable for beautiful markings and the refined forms of the leaves. Very pleasing to my eye were the following, viz., *Julie Serot*, the leaves having a silvery band on a lively green ground colour on which are seen a few silvery dots; *Bertha McGregor*, a variety with palmate leaves, which are of a faint pink tint at the edges, while the fingers are silvery white; *Le Merveilleux*, with small light green leaves having a brown central blotch, irregularly banded with grey, and the rest of the leaf furnished with numerous dots of the same tint; *La France* is like the foregoing, only the leaf is larger; *Mme. Bergman* has a serrated leaf with white blotches and green veins; *Franz Buchner* has a white and grey leaf with much spotting as if salted over; *Prince Charles of Denmark* has silvery markings with conspicuous green lines intervening; and lastly *Silver Queen* has silvery leaves with traces of a light green tint in the veins. We are all greatly pleased with the beauty of the young foliage of *Rex Begonias*, and the pity is that this fades off, as a rule, to such dull tints as the summer advances. The raising of young plants in successional batches seems to be the only alternative.—F. M.

Cymbidium lowianum.—Owing to the length of time which the flowers of this beautiful and easily-grown Orchid last, it is of much value. There are few gardens in Britain which do not possess one or more plants of it, yet it is surprising how seldom they are well grown and flowered, being usually placed in some corner of a stove house and left to look after itself. For many years it was considered to be a variety of *C. giganteum*, until Professor Reichenbach declared it to be distinct. Coming

from Burmah and India, it requires a growing and a resting season, and a compost of rough fibrous peat and loam, with ample drainage. Unlike most other Orchids, it likes plenty of pot room, but the watering should be much the same as that given to *Dendrobiums*, viz., a liberal supply while the roots and growths are active, and reduced with the temperature after these have finished their growth. The resting season is essential if successful flowering is to be attained. This usually begins in autumn. The temperature throughout should be between 45° and 55°, and the atmosphere moderately moist, taking care that the ball of earth does not get dust dry, but at no time allow them to get soddened with water. A well-grown and well-flowered plant is a great joy, and it is nothing unusual for them to remain in full beauty for ten weeks. To those anxious to grow it and who do not know it, I refer to the photograph which I enclose. The flowers are about 4 inches across, sepals and petals yellowish green, with several faint sepia brown lines, lip cream coloured, with the erect side lobes yellow, and having on the anterior part a large velvety maroon blotch, margined with yellow. We have it in flower here now, but the photograph is of a plant I had in my charge a few years ago when in the service of Mr. Belliss of King's Norton.—GEO. BURROWS, *Avon Castle Gardens.* [The photograph, which showed a remarkably fine plant, was unfortunately not suitable for reproduction, but we thank our correspondent for sending it.—ED.]

Memoirs of the Royal Caledonian Horticultural Society.—This society was founded on December 5, 1809, and two years later it resolved to publish its horticultural papers. The publication of these was forthwith commenced, and in 1814 the first volume was completed, and under the title of "Memoirs of the Caledonian Horticultural Society" was dedicated to H. R. H. Prince George of Wales. In 1829, however, owing to want of support, with the completion of the fourth volume the venture came to an end. Now the society essays another venture of the same kind, and trust that the present "Memoirs" will meet with greater appreciation on the part of its members and of the public generally than the original publications. It is hoped that the interest which the society feels will be awakened by the appearance of the first part of these "Memoirs" will be sustained as the succeeding parts appear. The present volume contains many useful articles, e.g., "Alpine Plants," by Robert Lindsay; "Hybridisation," by Dr. John H. Wilson; "Roses: Past and Present," by the late Hugh Dickson; "Herbaceous Plants," by R. P. Brotherton; "Modern Bee-keeping," by the Rev. J. W. Blake; "Potato Problems," by W. P. Wright; "Classification of Apples," by P. Murray Thompson; "Carnations all the Year Round," by David Kidd. Altogether these essays form a volume of valuable reading matter, and we hope the society's praiseworthy effort will meet with the success it deserves, and so enable them to continue the publication of the "Memoirs."

Decorative vegetables.—Generally speaking the vegetable garden is the last place one visits with the object of getting decorative material for house adornment, and yet amongst the vegetable family there are many things suitable for decoration. The humble Cabbage provides one useful item, and just now the variegated *Kales* are producing young shoots and leaves of colours unsurpassed for brightness. Under artificial light the colours of variegated *Kale* are very effective, and for a dinner table many things less attractive might be employed. The first time I ever saw *Storrie's Albino Borecole* I was very much taken with the colours of its leaves, and I could not help thinking that if it had been anything else except a common Cabbage it would have created quite a sensation. Some years ago a friend of mine gave me a pinch of Celery seed of a variegated variety, which produced green

leaves with white stripes. As a culinary vegetable the Celery was excellent, and the leaves were freely and effectively used for decorative purposes. Once I sent a box of flowers and foliage to a friend in town, for which I received a letter of thanks, in which particular mention was made of the prettily tinted Fern fronds at the bottom of the box. As a matter of fact the Fern fronds, so-called, were simply specimens of reddish-brown Carrot leaves, which are so freely produced towards the end of the summer. There are few things in Nature prettier than Carrot tops when tinted with colour, and yet one rarely sees them used for decoration. In short, it is in the highways and byways, the vegetable garden, and the woodland, that the decorator may often find material for use when he has looked in vain for something fresh and novel in the flower garden and greenhouses.—H.

Cassiope tetragona.—This is a plant that will commend itself to the favourable notice of the lover of the curious rather than to those who judge a plant simply by the showy nature of the flowers. It is widely distributed from Lapland through Siberia, and is also found in Canada. It belongs to the Heath family, and has been in cultivation for almost a century. In habit it is dwarf and creeping, and in appearance something like a *Selaginella* or *Lycopodium*, or one of the dwarf, dense-growing New Zealand *Veronicas*. The leaves are very minute, and closely clasp the stems, which are four angled. The flowers are white, bell-shaped, and drooping, and are borne singly from the leaf axils. Its best place is the rock garden, where it should be given a cool, moist position in light or peaty soil. When well established it forms a very interesting group, being quite distinct from anything else in the family.—W. D.

Spiræa arguta.—Among spring-flowering shrubs this is certainly one of the best, as it forms a shapely bush, flowers freely, and is easily grown. It is of hybrid origin, and is probably a cross between *S. Thunbergi* and *S. media*. When fully grown it forms a bush 5 feet to 6 feet high, and as far through, composed of thin, brown, wiry branches, clothed with small, bright green leaves. The flowers are pure white, and borne half a dozen or so together from the buds on last year's wood, and they are so arranged that all appear on the upper sides of the branches. For single specimens, beds, or groups in the shrubbery it is equally desirable, while for forcing it is also valuable. It is increased readily by layers, but is rather difficult to propagate from cuttings. Like other *Spiræas* it requires a rich, loamy soil, and gives little trouble when once established.—W. D.

The Teneriffe Broom (Cytisus filipes).—This has never attained the same amount of popularity as another member of the genus, native of the same region, viz., *Cytisus fragrans* or *racemosus*, which is largely cultivated as a market plant. Of this, however, good flowering examples can be grown in the regulation 4½-inch pot or 5-inch pot, whereas the beauty of *C. filipes* is apparent only when it has attained a good size, say a height of 4 feet to 8 feet, with a fairly clear stem for some distance, as then the long cord-like branches hang down to their fullest extent, and thus form an exceedingly graceful specimen. As with some of the other Brooms this species is practically leafless, but as the bark of the shoots is of a bright green colour the absence of foliage is thus compensated for. In all stages this is, from its graceful character, very beautiful, but in spring, when these shoots are studded for some distance with their pure white Pea-shaped blossoms, the Teneriffe Broom is seen at its very best. It is sometimes met with as standards grafted upon the *Laburnum*, but for my own part I much prefer seedlings, that can be trained to form a head if required or with the central stem supported by a stake, and the side branches, except the lowest ones, allowed to dispose themselves at will, a pretty effect is

formed. In the extreme south-west of England this may be fairly hardy, but generally speaking throughout the country it must be regarded as a conservatory or greenhouse plant. It is said to have been first introduced into this country a century and a quarter ago.—H. P.

Proposed Grand Rose Show for the Southern Counties.—It has been suggested by some patrons, who are Rose growers, that the council of the Southampton Royal Horticultural Society should endeavour to make their summer exhibition the principal Rose show for the Southern Counties. It is proposed, therefore, to institute a special subscription list to be devoted to improving the Rose classes. Application has been made for affiliation with the National Rose Society, and the competitions will be under its rules. The pavilion on the Southampton Pier, where the shows are held, is an ideal place for the exhibition of cut Roses; the blooms remaining nearly as fresh on the second day as when first staged. Ladies and gentlemen willing to assist the above proposal are requested to kindly communicate with the undersigned at their earliest convenience, as a supplementary prize list must be sent out before the end of May. Suggestions are invited. Tickets are issued to all subscribers. The council of the society has voted £20 extra for the above.—C. S. FUDGE, *Secretary*, 6, College Terrace, London Road, Southampton.

Clematis indivisa.—Even on small plants in pots the pure white starry blossoms of this Clematis are very beautiful, but to see the plant at its best, ample space for its long rambling shoots is necessary. One has been planted out in the cooler portion of the Temperate house at Kew for some few years, and this season it has, I think, been even finer than ever. Being in a border of well-prepared soil it, of course, grows luxuriantly, and its beauty is much enhanced by the absence of any hard and formal training, for beyond ensuring the clothing of a certain space of roof the long flexible shoots are allowed to dispose themselves at will, hence a pleasing and informal picture is the result. Even without blossoms the Clematis is a pretty climber grown in this way, but when these long loosely-disposed shoots form veritable floral wreaths it is a sight to see, and alone well worth a journey to Kew. Under these favourable conditions it does not seem to be troubled by mildew, to which, when in pots, it is somewhat liable within the London district.—T.

Phlox divaricata.—In soils that cake and become close under the influence of winter rains this Phlox is never likely to show its true worth. It revels in a rather porous soil, and enjoys a liberal amount of decayed vegetable matter. Several years ago I obtained some strong plants that had evidently been grown in very sandy soil partly composed of peat and very old leaf-mould, such as one sometimes finds in Oak woods. I put them in light loam with an addition of leaf-soil, and they bloomed remarkably well. The next year they were not so good, and the third season growth was so poor that they scarcely gave any bloom. I then gave them a top-dressing of peat, and they at once improved. In the autumn I made a piece of soil for them, adding about one-fourth of peat, and in this they have made a luxuriant growth. When I took them up I found that nearly all the roots in the original soil had perished; but the top-dressing of peat was full of active fibres.—J. CORNHILL.

Plum blossom.—In the orchard districts of West Middlesex the Plum trees are literally garlands of snowy whiteness. Beside the roads on which the electric trams run the wealth of bloom and of beauty is so great that many persons are tempted to ride outside that they may drink in to the full the loveliness of this floral display. But to what will it all lead? Of the robustness and fertility of the bloom there seems to be no doubt, but it is to be hoped all the same that but one-sixth of it, or even less, may prove fruitful. Even so much of fruit would give a

great crop, and a very heavy crop of Plums is not a desirable object. It is difficult to thin Plums on tall or standard trees, yet wherever it can be done it is best, both for the fruit and for the trees. We may think that Nature at stoning time will do her part with the thinning, but it is not well to trust to that absolutely. Plum trees on walls fruit commonly well because the fruits are well thinned. Standard and bush trees fruit irregularly because a heavy crop of Plums is so exhausting.—A. D.

Peas ("Blue Boilers").—The cultivation of certain sorts of Peas for boiling in a dry state is carried on in different parts of the country to an extent that is surprising to those unacquainted with this aspect of the seed trade. Two varieties in particular are grown for this purpose, both blue round varieties; one is known as Harrison's Glory, the other Bedman's Imperial. The Peas are mainly grown by farmers, and is found to be a remunerative crop. As soon as sufficiently ripe the crops are harvested and stacked, and then sold to seed merchants in Leeds, Wakefield, and elsewhere. The Peas are hand-picked by them, and then marketed in the midland and northern counties. Very large quantities are thus produced, and they are in great demand in the manufacturing districts, where they are a staple article of food. It is not every Pea that will boil well in a dry state, and



DENDROBIUM NOBILE.

so it is a custom with the wholesale seedsmen, should they have a quantity of any round white Peas left over, to boil a sample, and if it proves amenable to the culinary purposes to which Peas are put the bulk is sold on the market for split Peas, the boiled sample being submitted as a test of fitness. In addition to the blue Peas being sold to households for ordinary consumption, there are itinerant vendors who do a large trade at supper time by taking their stand at some favourable point and retailing them smoking hot. The Peas are soaked in water for twenty-four hours before being boiled, when they take on a consistent softness, and by those who partake of them regarded as equal to fresh-gathered crops. The vendor of supper Peas takes them when quite hot round a certain district. He announces his presence by ringing a bell, then the housewives troop forth with their basins, and in this way a palatable and satisfying evening meal is secured. It should be stated that when the Peas are placed in water they will absorb the whole of it; they are then placed in a second quantity and boiled in it quite slowly, simmering for two and a-half hours. Thousands of quarters of Peas are grown for this special purpose.—R. DEAN.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

GRADING AND MARKETING ENGLISH APPLES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mrs. E. T. Moyle, evidently by her note written from New Jersey, is unaware of the great amount of preaching to our Apple growers the doctrine at once of honesty as well as of grading in sending fruit to market which has been done here for some years past. At every fruit conference, in lectures and addresses repeatedly, and in the gardening Press, have home growers of Apples been urged to adopt better methods, and send to market or to shops not only their best fruit only, but also properly graded and packed in non-returnable utensils, whether tubs, boxes, or baskets, but in every case seeking to present to the public as the great purchaser the best possible fruit in the best possible way. We must not forget also that at its great fruit shows at the Crystal Palace for years the Royal Horticultural Society offered prizes for superior examples of fruit packing and grading, and these should have done much to help educate the grower into better methods. In spite of all this effort little benefit seems to have resulted. In how few cases do we see Apples sent to shops or market in other than in large, round wicker baskets, or in similar made hampers, or in other rough, unfit utensils, whilst the admirable methods of the Colonial or American grower are in no way copied. If Apples can be sent so many thousands of miles in tubs in huge quantities and arrive here in remarkably good condition, why are not similar tubs used here? There is no real reason why they should not be, except that we have yet so much to learn in the matter of grading, of what is right and just in trade, and of packing into the tubs only perfectly sound fruit all of one and the best size. Home salesmen and dealers rely absolutely on the honesty of Colonial packers. When they can do the same with home packers home fruits of the best quality should then find a place in every shop and store. A. D.

DENDROBIUM NOBILE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am sending a photograph of a plant of Dendrobium nobile. It is flowering the whole way round the plant. Altogether 224 flowers are open. E. BURROWS
(Gardener to the Ven. Archdeacon of Chichester).
Woolbeding Rectory, Midhurst, Sussex.

FOR AND AGAINST THE ALPINE HOUSE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your article on the above subject (page 199) does not give many of the reasons that might be adduced against the growing of hardy alpine plants under glass. The question, I think, resolves itself into this: Can alpine plants be grown to perfection out of doors in the British Islands without the aid of any glass structure whatever? So far as the health of the plants is concerned, they are infinitely better without any such protection, and I greatly doubt if the health of their owners is very much the better of such structures, but that is a matter on which opinions differ. It would be interesting to know "what alpine has been found to thrive better under such conditions than in their native wilds." If alpine, as you say, do better in Scotland than in the south it is certainly not because they are pampered by glass structures. But why not a herbaceous house or an annual house? Either or

both might be made very attractive with their pots and pans and other paraphernalia. ALPINE.

[The letter from "Alpine," questioning the advantage of an alpine house for early-flowering hardy plants, seems to show that the writer does not quite understand the purpose for which it is intended. It is not claimed that a house is necessary for growing alpinists in all the year round; in fact, it would be greatly to their disadvantage to be confined in that way. Its real use is to provide shelter for the fragile flowers of those plants that bloom during the inclement weather often experienced in this country in spring, and to enable those interested in these alpine gems to enjoy their perfection regardless of the weather. Contrast the appearance of a well-grown pan of *Saxifraga burseriana* in full flower, and which was moved into the house before the buds opened, with a patch outside, all the flowers of which have been mutilated and discoloured by heavy rains, which are usual at this time of year. Many of the Crocuses also are only seen at their best under these conditions, for most people are familiar with ruined groups of these pretty flowers in February. Many others might be mentioned which would benefit by being placed in a glass structure while they are flowering. The question as to whether alpine plants can be grown to perfection out of doors in the British Islands without the aid of glass is an open one, for many plants of a silky nature, like some of the *Androsaces*, would present a sorry appearance in the vicinity of large towns like London if not protected by a sheet of glass during the winter months. A strong advocate for protection of this kind was the late Rev. Wolley-Dod. Of course, it is well known that many, if not all, alpinists do much better in the north, where the climatic conditions are more akin to those obtained in their native habitats, and where they get a somewhat longer period of rest. In the more southern parts of this country they start into growth early, and are alternately forced into premature growth and cut back by frost and cold winds. "Alpine" asks why we should not have a herbaceous house or an annual house. One may naturally ask, Why employ these two terms? for an annual is usually classed as herbaceous and would be included under the former. Many herbaceous annuals and perennials are much used for greenhouse decoration, and are certainly attractive enough mixed with other kinds of plants; but a house devoted solely to their use would hardly prove so interesting as a house of alpine plants, each of which occupies but a small space. The stately Hollyhock or Sunflower can hardly be compared with a pan of *Saxifraga* or *Shortia*, for whilst the former are imposing in groups on the lawn or border, they hardly lend themselves for use as pot plants. On the other hand, the latter are eminently suitable, and by the use of a stage in the unheated house are brought nearer to the eye, and may be enjoyed in comfort. In conclusion, it may be added that the sole use of the alpine house is to afford protection for plants coming and in flower which have been grown for the rest of the year in cold frames.—W. IRVING, *Kew*.]

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your leading article in THE GARDEN for April 8 prompts me to send this note. The thoughts it gives expression to have been in my mind for some time. I shall not enter into the question of the fitness of alpine houses further than this. There are a large number of persons of refined taste in horticulture who from various causes cannot enjoy the pleasures of a greenhouse in its ordinary form. To them the pleasure of being able to get under a glass shelter in the early spring months and see the gradual resurrection of many of Nature's living gems would be great. I am assuming that the space covered over with glass would be laid out as a small (or large) rock garden, and the living

occupants growing naturally thereon. The site would be a very important point, and can only be properly decided upon on the spot. If an alpine rockery is already in existence, or in contemplation, I would suggest that the alpine house, or shelter, be incorporated. What is known as a good example of a modern greenhouse would be the last sort of structure to erect. The only glass used should be the roof glass, and this should be formed of movable sashes, with not too wide squares, so as to be easily removable, from say June to December in each year. If I were called upon to erect an alpine house, I should try to get hold of some sound old sashes from some garden where the old houses were being removed to make way for modern erections. The pitch of the roof should not be too steep, say at an angle of 28° to 30°. It may be either a lean-to or span-roofed, according to taste and local conditions of site, &c. A space of say 20 feet square would afford room for a nice sized rockery, and the cost of covering this over need not be great. No glass at either ends or sides is necessary or desirable. The walls to carry the roof should, if possible, be built of local stone, and in as natural a manner as possible. Here would come in an opportunity of wall gardening in one form or another. More might be added as to grouping some of the choicer shrubs to mask the ends and side walls of the structure erected, but, no doubt, any one who erected an alpine house would see to that being done also. There can be no doubt that such a structure would afford interest and pleasure to many.

H. J. CLAYTON.

Grimston Gardens, Tadcaster.

THE CAT AS GARDENER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The article entitled "Round About a Garden" in your issue of the 29th ult. is in such direct contradiction to my experience that I feel impelled to give the other side of the picture. Your contributor remarks that it is "for want of blackbirds that slugs abound," and makes a great onslaught on the harmless, necessary cat. It is three years since I had the misfortune to lose my cat, shot by a gamekeeper. Since then the birds have made very free with my garden, and blackbirds and tits nest all over it. I feed them in the winter. In the spring the tits destroy the Cherry-buds and strip the bush fruit. Later on they peck holes in the Apples, so that these have to be harvested before they are ripe. The blackbirds and thrushes are so assiduous at the Strawberry beds that no netting but wire-netting will keep them out. They tear at fish-netting with their strong beaks till they have made a hole large enough to wriggle through. Of course, the sparrows pull the heads off Primroses and Polyanthus and Crocuses and even Frillaries, and if they do eat green fly, as Mrs. de Lacy-Lacy says, they do not seriously diminish their numbers, for I have to syringe my Roses twice a week and "hand-pick" the grubs. Meanwhile the slug pest goes on unabated. I never saw a blackbird burrowing for slugs, though he does seem to get some leather-jackets. He goes to bed when the slugs come out to feed, and I gather them myself in thousands by lamplight. My cat was a most useful gardener, for she kept the pretty birds at a distance, and now that voles, wood mice, house mice, and rats have taken to devouring Crocus bulbs, Iris roots, and the young green of my Carnations and Columbines, I think it is high time to call in the co-operation of pussy.

Knutsford, Cheshire.

H. M. SWANWICK.

ENGLISH v. AMERICAN APPLES.

(THE GRAVENSTEIN VARIETY.)

[TO THE EDITOR OF "THE GARDEN."]

SIR,—“Eon” (page 232) may be glad to know that he need not cross the great herring pond in order to eat the Gravensteiner fresh from the tree. The home of this truly fine variety is

Schleswig-Holstein, and thence eastward along the coast of the Baltic Sea. Nowhere in Germany does it succeed so well as along the above coast. When I first tasted the Newtown Pippin it reminded me very much of the Gravensteiner, and I should not be surprised to hear that the latter was a very close relative to the Newtown Pippin, even perhaps directly its parent from seed.

Planegg, Bavaria.

E. HEINRICH.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—A good deal has been written of late about the merits of the Gravenstein Apple. Last year readers should be led to lay out too much money in planting this variety, may I briefly relate my experience with it. Having heard that it was the best Apple grown in Denmark, and a great favourite with Her Majesty Queen Alexandra, I wrote for some trees from a very reliable source. I found there were five different varieties, so I planted three of each—fifteen trees. This was in 1893. They were a long time in coming into bearing, and when they did fruit we thought them a very poor lot indeed. They were allowed to fruit a second time, and then they ended their days on the fire. I should like to know if the Apples exhibited at the autumn fruit show of this variety were grown in England or Denmark, for, as we all know, there are many Apples which are good in one locality and not in another, and it is quite possible that the long days of the northern summer, which will ripen Barley in some twelve weeks after sowing, may produce a flavour in this variety which is lacking when grown under different conditions; at any rate, I have not yet tasted Gravenstein with any particular merit, and should class it as far inferior to Lady Sudeley.

Lowdham.

A. H. PEARSON.

ENGLISH NAMES FOR FLOWERS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The recent notes upon English names for flowers are especially interesting to those who find in them a touch of poetry or a suggestion of old-time domestic lore. In newer lands, however, such names may easily become misleading, as they are often applied in recognition of a fancied resemblance. Here, in New Jersey, *Caltha palustris*, one of our earliest spring flowers, is generally called Cowslip, though it is also known as Marsh Marigold and Swamp Buttercup. The name Honeysuckle is here applied to the native *Columbine*, *Aquilegia canadensis*, and also to two *Rhododendrons*—*R. viscosum*, called White Swamp Honeysuckle, and *R. nudiflorum*. For the latter I prefer the name of Pinxter Flower, given by the Dutch settlers in recognition of its Whitsuntide bloom. The large, fleshy galls, pleasantly acid in flavour, produced on this *Rhododendron* by a gall fly, are called Pinxter Apples. We find the fragrant little *Epigæa*, the Mayflower of New England, described as Ground Laurel, Trailing Arbutus, and Shad Flower, the latter being its name along the New Jersey coast, where it is in bloom when the shad is ascending rivers to spawn. Here *Amelanchier canadensis* becomes Shad Bush. When in the middle west I was surprised to hear *Forsythia* called Golden Rod, which was distinctly confusing. Then there is Bittersweet, which I think in England means *Solanum Dulcamara*; here it means *Celastrus scandens*, also called "Waxwork." The graceful wild Carrot, an "assisted emigrant" from Europe, is called Queen Anne's Lace or Bird's-nest; I admire it greatly from an æsthetic standpoint, but it is a most pestiferous weed. The Massachusetts Legislature is now considering a special Bill directed against it. Side-saddle Flower seems rather far-fetched for the *Sarracenia*, but one has the choice of Whip-poor-Will's-shoe. Ghost Flower seems more appropriate than Indian Pipe for the ghastly *Monotropa*. I cannot close without expressing my undying

disgust for the unpoetic soul who first called *Kalmia latifolia* "Calico Bush." Of course, the name sticks, though we insist that it is Mountain Laurel.

Maywood, N.J. EMILY TAPLIN ROYLE.

THE SCARCITY OF ONIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am glad to know that "W. T." and myself are in agreement on some points relating to remarks made by me in the pages of *THE GARDEN* a little time since, and especially as to what I consider, after all, the most important, the suitability of much of our land for Onion culture. Granted this, in spite of anything "W. T." may say to the contrary, I am fully convinced that by adopting proper means there would be an increased demand for home-grown productions. As with Onions, so with many other products grown in this country. Compared with other countries we move slowly, and are a long way behind the times. Study the best mode of cultivation, the best varieties to grow, use more care and intelligence in harvesting the crop, and when this is done place them on our markets before the public in a more attractive way than is generally the case, both as regards grading and cleaning them, and the prejudice in favour of Spanish, Egyptian, and other countries' productions would soon cease. My object in advocating raising seedlings under glass is that the early growth made under such conditions renders the crop practically proof against the Onion fly. To me it is somewhat painful to see the splendid stretches of land of the best quality in various parts of the country practically idle, and yet we are content to say, "We can't compete with the foreigner," and yet have we not heard the cry all through the past winter, not only of the scarcity of Onions, but also of employment for willing hands. E. BECKETT.

HARDY VINES FOR COTTAGES.

(Continued from page 263.)

At pruning time in winter each shoot should be cut back to within a foot of its base. The following spring the buds below the cut part will again form shoots, the terminal one being encouraged to grow in an upright direction as before, and the lower buds in a horizontal form, as it is on these shoots that the fruit will be borne. These should be 8 inches apart, and allowed to grow until they are 9 inches long, and then stopped. They will then have filled the space allotted to them, which is not very great, as the foliage and growth of this variety is small, and thus a good foundation is laid. Every winter the main upright branches must be pruned back to within about 18 inches of the spot where it had been pruned the previous year, and so on until they have filled their allotted space.

Summer culture is very simple, and consists in stopping lateral growth on the shoots and thinning the berries as soon as they are formed. As a rule one-half of these should be cut out, and these the smallest. In hot weather during summer they should receive a layer of good manure, this being placed over the roots, and an occasional good watering given. One bunch of Grapes to a shoot is considered a good crop if they are of fair size, but if small, two on every alternate branch is not too many. The success of the Vines would be encouraged by syringing in the evening of warm days. Those preferring a black Grape should grow Reine Olga.

OWEN THOMAS.

ROUND ABOUT A GARDEN.

BEAUTY OF THE DOUBLE ARABIS.

THE double Arabis, whose massed white bloom makes so fine a surface for the taller scarlet Tulips to rest their flaming cups upon, has not been long enough in our gardens to have lost all claim to admiration for its generosity of bloom. In time, no doubt, its very virtue of easy multiplication will cause us almost to dislike it, for it is certainly one of those things which "spread everywhere," and which will surely come in time to be the sign of a neglected garden, as to a great extent the common single Arabis has been for a long time. But for a few years longer we shall, no doubt, be able to admire the beauty of the double Arabis without qualms of doubt whether we should not expel so easily overgrown a plant from a garden with any pretensions to choiceness in its contents. And, while we have it, we must admit the plant to be one of the most successful results of the gardener's art in doubling single blooms.

DOUBLE AND SINGLE FLOWERS.

Indeed, it would be hard to name any other plant which has been so much improved in the process, and it should offer a useful guide to similar achievements in the future. For there are many cases in which the production of double blooms has been labour thrown away. Not one person in a score, for instance, but infinitely prefers the single to the double Daffodil, and, comparing this with the universally-admitted superiority of the double Arabis, we see plainly the reason, namely, that the beauty of the Daffodil's airy, bell-like grace is affected when the tube is as it were stuffed up with close-packed yellow. The single Arabis, on the other hand, had no claims to grace. Its sole merit as a flower was its early sheet of white, which soon wore threadbare; and the double kind gives us a richer, softer sheet of better texture, which wears far better. It also gains distinction from the fact that its necessarily larger buds suggest something of the beauty of the Lily of the Valley in their style of growth.

UNFORTUNATE RESEMBLANCES.

These connexions of ideas are among the most potent factors in our judgments of flowers. Even in the case of the double Daffodil, perhaps, we should not miss its loss of grace so much if the crowded yellow tube did not carry some suggestion of the Dandelion. No doubt, too, it is this resemblance to the Dandelion which makes the double *Kerria* seem so markedly inferior to the older, but rarer, single kind. If the *Kerria* were pale primrose colour or violet blue, we should probably admire the double kind the more, because neither Primrose nor Violet have, as it were, sated our eyes with close-tasselled blooms of their respective colours. Although, too, we admire the common wild Daisy after a fashion, what a relief it is to the eye when the doubling of any of the small white Daisy-like flowers in cultivation removes the yellow centre of the flower-heads, and when these reappear in self-sown plants how distressingly "common" they look at once!

FLOWERS SPOILT IN "DOUBLING."

But other ideas than such immediate connexions of ideas enter into our judgment of the

respective merits of single and double flowers. Besides the loss of grace, which inevitably follows from the doubling of a flower whose beauty depends largely upon daintiness of pose and outline, there may be loss of character also. Thus half the beauty of many flowers depends upon their cup-like shape, the pistil and stamens appearing as the proper contents of some waxen bowl, and the doubling of these makes merely a mass of meaningless and uninteresting colour. On the other hand, there are limits beyond which the single flower begins to appear too thin and empty. This stage is easily reached in the Dahlia, for instance, and by placing even that usually unsatisfactory compromise, a "semi-double" bloom, beside a large single Dahlia, you see at once how the frilling suggested by the extra florets relieves the emptiness and weakness of the single flower.

DAHLIA AND ARABIS.

In doubling Dahlias, however, we found it very easy to go too far; and those who nowadays admire the close-packed heads of old-fashioned Dahlias are few. Between the emptiness of the too large single blooms, and the excessive compactness of the old doubles, the Cactus Dahlias hit a happy mean, simply because in them we have succeeded in taking away the suggestion of emptiness, without sacrificing grace and lightness. By carefully observing the general taste in flowers, and the reasons for it, florists should get their best clue as to the line to follow. In other words, those flowers will be found best worth cultivating with a view to produce double kinds of permanent popularity which have nothing to lose by the process—simply because, having nothing to lose, they have everything to gain. No better instance than the Arabis could be quoted. The plant itself had no grace, and the individual flowers no character whatever; therefore it was, as has indeed been shown, one of the best of all plants to operate upon. Indeed, from the florist's point of view, its few merits are bound to prove its only defects—namely, its rapid growth, easy multiplication, and extreme hardiness, a combination of qualities which are certain to make it too common for admiration before long.

FASHIONS AND RULES OF COLOUR.

Almost more interesting than our fashions in single and double flowers have been the changes in colour, with which our popular plants seem to keep pace with our æsthetic culture. Those of us who are not very "middle-aged" yet can easily remember the time when the crudest greens and blues and pinks were the colours of fashion. Then a garden party or a ballroom was a shifting kaleidoscope of clashing colours, and it was part of the legitimate warfare of the sex to buy a new frock of a colour intentionally chosen to "kill" the hue of a rival's new dress. It was about then that that most hideous of all colours, according to a majority of opinions nowadays—magenta—became almost universally popular, and among old-fashioned flowers which are pink in colour few are free from the magenta taint. On the other hand, a little while ago we undoubtedly went too far in the direction of sad and undecided æsthetic hues, and it is pleasant now to see that the colours most in favour are—in pinks, those with a healthy suggestion of carmine, and in blues the real intense blue of the gentian, with the clear pure yellows of Primrose and Daffodil. No doubt the pendulum of taste

will swing from the perpendicular again, but it must always return to it, because there are rules of beauty in colour as in shape.

E. K. R.

THE FLOWER GARDEN.

SHORTIA GALACIFOLIA.

SINCE its rediscovery on the mountains of Northern Carolina in 1877, this beautiful plant has rapidly become a popular favourite, and judging from the quantities recently exhibited by various nurserymen at the fortnightly meetings of the Royal Horticultural Society, and the modest price for which it can now be obtained, it promises to be in time one of the commonest of garden plants. It is well adapted for moist situations in the shade of taller-growing subjects, such as Heaths and kindred plants, the same soil suiting both admirably. On a northern aspect in the rock garden it makes itself at home, but to obtain the brightest colouring in the evergreen foliage it should be planted where it can receive the influence of the sun's rays for a portion of the day. It is not adverse to the sun for a limited period, providing that there is plenty of moisture in the soil. It is also a most valuable plant for the alpine house in winter, with its elegantly coloured green and bronze-red foliage, followed in March by its bell-shaped flowers, which vary in colour from white to rose. After flowering it should be taken out of the house and plunged to the rim of the pot or pan in a north frame, to remain there whilst it is making its growth. After this is completed it may be exposed to more sunlight to develop the colouring in the leaves. Altogether a charming and easily-grown plant, it deserves a place in every garden. It is figured in the *Botanical Magazine*, t. 7082.

W. I.

CROSS-FERTILISING THE AURICULA.

THIS is a very interesting process, and it is one that should be performed with set purpose and methodically. Young plants giving their maiden bloom should be selected for the purpose; the act of bearing seeds imposes a certain strain on the plants, and those which are young can bear it better than the older ones. Those who make the attempt to cross-fertilise should be very careful to cross green edges with green edges, grey edges with grey edges, white edges with white edges, and selfs with selfs; indiscriminate crossing of these classes will lead to confusion and a mixed progeny; the aim of the cross-fertiliser should be to intensify the distinct features of each type of the Auricula. The late Mr. John Read, the raiser of Acme, Ruby, &c., once in a communication he made to me set forth in detail his method of cross-fertilisation, and I cannot do better than give it in detail. "My practice in crossing the Auricula for seed is as follows: Having first selected the two varieties in the same class, in as nearly the same stage of maturity in the pip as possible, choosing the

seeding-bearing parent for form and the pollen-bearing parent for colour; then so soon as the pip partially expands, and it is possible to see into the tube and note that the anthers have not burst, with a pair of small-pointed scissors I cut away the pip just below the anthers, being careful not to injure the stigma with the scissors in doing so. There is then no danger of self-fertilisation or of being crossed by insects, as they will not approach a mutilated flower. When the pollen-bearing parent has an expanded pip and the anthers are in a powdery condition, I, on a fine sunny morning, examine the stigma of the prepared pip, which will most probably be in a fit state to receive the pollen, and will present to view a viscid appearance on the summit, then with a camel's hair pencil, drawn to a fine point by placing it in the mouth, I collect a portion of pollen from an anther and insert it into the mutilated tube, scattering the pollen over the stigma, to which it will adhere, repeating the operation to make doubly sure, and if the day be fine and warm it is possible soon to witness the effect produced on the stigma. If other crosses are to be made I cleanse the camel's hair pencil from any grains of pollen remaining on it by passing it through my lips, a practice

the seeds being surrounded with a delicate woolly substance. It is, therefore, usual with some, at the time of sowing, to sprinkle fine dry silver sand pretty freely over the seeds, and rub the seeds and sand well between the hands, when the two become thoroughly mixed, and then sow all, doing so in lines in the open, about 9 inches apart, and cover very lightly with some fine soil to the depth of a quarter of an inch, or else broadcast in boxes in a cold frame. Care should be taken not to exceed a quarter of an inch of covering, a thicker coating will sometimes prevent germination. Seeds may be sown in March and on to the month of July. In three weeks or a month they germinate; the seedling plants in the open drills can be thinned out as required, and transplanted; those sown in boxes will need planting out when large enough.

Messrs. Reamsbottom and Co. point out that "the great secret in growing St. Brigid Anemones is not to plant the roots deeply, 2 inches of soil being quite sufficient covering." This is an important point. They further state that "the Anemone likes a position sloping to the south or west, and though the plants revel in moisture, stagnant water about the roots is fatal to their well-being. It is best, therefore, to



A GROUP OF THE BEAUTIFUL SHORTIA GALACIFOLIA IN MR. CRISP'S ALPINE GARDEN, FRIAR PARK, HENLEY-ON-THAMES.

with other raisers of seedlings." I trust the foregoing will prove both interesting and instructive to your correspondent. R. DEAN.

SOWING SEEDS OF ANEMONES.

WE are indebted to Ireland for some of our finest strains of Anemones. I think it was Mr. F. W. Burbidge who gave the designation St. Brigid to a fine strain single and double, of Irish origin, and that has been materially improved upon by Messrs. Reamsbottom and Co. of Geashill, King's County, who make a point of exhibiting their fine strain at various of the spring and summer shows in this country. Then there are Messrs. Gilbert and Son, Bourne, Lincolnshire, who have also done much to improve the strains they grow, and especially of the double scarlet type; they also are in evidence at exhibitions.

Anyone acquainted with the seed of the Anemone knows it to be of a soft, fluffy character,

plant in raised beds, 4 feet wide, with a trench 9 inches deep on either side." I am persuaded that excessive moisture about the roots in winter has destroyed the fair promise of several beds about London. A well-drained position is, therefore, essential to the well-being of the Anemone.

The authority already quoted adds: "The ground should have plenty of well-decayed manure dug in previous to planting, but care should be taken that it does not come into actual contact with the roots, though it should be only an inch or so beneath them. If left in the ground after the foliage has died down, which usually takes place in June or July, the bed should have a layer of old hot-bed or other well-decomposed manure, about an inch in depth, spread over it as soon as the foliage has disappeared."

I sometimes look over the catalogue of Anemones, published by Mr. Carey Tyse of Wallingford in 1851, and note his list of the best fifty double Anemones. Those were the days when

Anemones, both double and single, were named, and classed with florists' flowers. Some of the double varieties must have been very beautiful, but there is reason to fear they have all become lost. Perchance, the time may come when the Anemone will once more appear to the fore, and if so enterprise will enter upon the work of reproducing what has been lost, for the possibilities of the flower from seed are great. R. DEAN.

A BEAUTIFUL NEW HARDY FLOWER.

(*MECONOPSIS INTEGRIFOLIA*.)

At the meeting of the Royal Horticultural Society on the 25th ult., the beautiful novelty *Meconopsis integrifolia* was shown in full flower, and attracted much attention. It received a first-class

certificate from the floral committee, and we heartily congratulate the exhibitors, Messrs. Veitch and Sons, Ltd., on acquiring so remarkable a novelty. A long account of the plant in Messrs. Bee's nursery was given in *THE GARDEN*, September 17, 1904, page 188, but this is the first opportunity we have had of figuring it, and we hope also to illustrate it in colour. In the *Gardeners' Chronicle*, October 1, 1904, it is fully described, and we take the following particulars from that journal. The seeds were collected by Mr. E. H. Wilson, whose work as a collector is already renowned.

"One of the principal objects of Mr. Wilson's second journey was to obtain seeds of *Meconopsis integrifolia*. Writing from a town in Western China at the end of July, Mr. Wilson says:

"I returned safely yesterday after an absence of eleven and a-half weeks. The trip proved the longest and most arduous I have undertaken. I reached Tatieu-lu by

way of a small mountain road after twenty-one days' hard travel. After a few days' rest I made a trip to the Yalung River, 100 miles west of Tatieu-lu. On returning I scoured

"The journey from Tatieu-lu to Yalung River proved to be a bigger undertaking than I expected. On June 19 we experienced a blizzard of snow and sleet the whole of the

day. Snow lay thickly on the ground, and on the top of the pass (altitude 14,500 feet) it was over 3 feet deep. I was so numbed with cold that I could hardly sit in the saddle. My men suffered from the effects of the rarefied atmosphere, and some had their toes frost-bitten. All of us suffered more or less from snow-blindness. We were a pitiable-looking party when we returned to Tatieu-lu; I had to turn family doctor for a time. I am glad to have had the experience, but never again do I want to travel in the mountains of Eastern Thibet. We travelled with ponies and yak, and were well received by the natives everywhere.

"The highest altitude reached was 16,100 feet, which is practically the limit of vegetation seen on the more open tablelands or plateaux. The feature of these higher mountains is the wealth of *Rhododendrons*. I have written you much in praise of the Chinese *Rhododendrons*, but my pen is too feeble to paint you the picture as it really is.

To see miles upon miles of mountain-side one blaze of *Rhododendron* flowers is to see something better to be imagined than described. . . .



THE BEAUTIFUL NEW MECONOPSIS (*M. INTEGRIFOLIA*). (Slightly reduced.)

the Tatieu-lu neighbourhood, and finally left on the return journey on July 11 by the ordinary route. I enjoyed the best of health the whole of the time.



"Turning now to the main object of our search in these wilds—*Meconopsis integrifolia*—I have nothing but success to report. I have found it in millions. The dried material in herbaria gives no real idea of the magnificent flowers this plant has. The flowers are often 8 inches to 10 inches in diameter, of a lovely bright yellow colour. I have seen on one plant as many as fifteen flowers expanded at one time. This, however, was exceptional. The usual number is from four to six. I counted the flowers and buds on fully a hundred plants, and found they averaged eleven to each plant. The largest number was eighteen. The number of petals is often in excess of the normal five. It is a common sight to see a thousand or more in full flower together. The species is never found below 11,000 feet, and 15,500 feet marks its upward limit. From my more extended observations this year I have lost many of my fears in regard to its possible ill-behaviour under cultivation. Treat it as a hardy, moisture-loving plant, give it a place in peaty or leafy soil, and I believe you will succeed. Whatever you do, do not coddle the plants, or you will kill them. Mother Nature is harsh in her woods and clearings in these mountain fastnesses. The plant is undoubtedly a biennial."

TREES & SHRUBS

DAPHNE BLAGAYANA.

HERE are many members of this genus, but this plant is probably one of the rarest seen in robust health.

When it can be successfully grown it forms a beautiful shrubby plant of rather straggling growth, with tufts of leaves at the tips of the branches. The bunches of fragrant white flowers are produced freely in March, and last in full beauty for a long period. It is eminently suited for the rock garden, planted in an open situation, and provided with perfect drainage and plenty of stones for the roots to ramble amongst. After flowering is over it is advisable to layer or top-dress the plant by placing on and between the branches a quantity of good-sized pebbles with a little soil, gradually building up the whole into a mound, with the shoots just appearing at intervals all over it. A mound of this description many feet in diameter is a beautiful sight in the early spring at the Royal Botanic Gardens, Glasnevin, where it is successfully cultivated, and flowers abundantly. Climatic influence evidently plays a most important part, and the mild winters of the Sister Isle are conducive to its well-being. It is a native of Carniola, and is by no means abundant in a wild state, and although it may be increased by layering, it is still somewhat rare in gardens. It is figured in the *Botanical Magazine*, t. 7579, as well as in *THE GARDEN*, 1878, XIV., 200, p. 143.

W. IRVING.

COLOURED PLATE.

PLATE 1274.

PHAIUS TUBERCULOSUS.

ORIGINALLY figured by Thouars in 1822 under the name of *Limodorum tuberculosum*, and afterwards renamed *Phaius tuberculosus* by Blume, was the very handsome and distinct terrestrial species so well depicted in the accompanying coloured plate. It was introduced to cultivation by M. G. Warpur in 1900, as a supposed new terrestrial species of *Phaius*, among some interesting Orchids brought over by him from Madagascar. Some of these plants were sent to Kew, where they were grown on and reached the flowering stage in January, 1901. It was then that R. A. Rolfe made the surprising discovery that this supposed new species that was to

Cookson has made wonderful progress with the same beautiful species, using it both as a pollen and a seed parent, and the series of hybrids produced form an interesting and desirable section of plants, which Mr. Chapman, the able gardener at Oakwood, cultivates so successfully. Both species, *P. tuberculosus* and *P. simulans*, are natives of Madagascar, the former being found in half-dry humus at an altitude of 1,200 feet to 1,500 feet, while the latter grow on tree trunks at lower elevations. This plant has always proved a rather difficult one to cultivate successfully, especially after it has once thrown up a strong flower-spike. I well remember a finely-grown plant flowering with a strong spike in the collection of the late Rev. Handley of Bath in 1883, and was commented upon in *THE GARDEN*; but this plant, like many others, never survived to produce another such spike. In the true terrestrial species we have a plant with a stronger constitution, and as it comes



A COLONY OF *DAPHNE BLAGAYANA* AT FRIAR PARK, HENLEY-ON-THAMES

be introduced as *Phaius Warpuri* was none other than the true *P. tuberculosus*, and the epiphytal species which had been posing under that name in gardens for over twenty years was nothing but an impostor, without a name of its own. Strange to say, the flower produced by the latter species has a remarkable resemblance to those of the original, especially in colour, and it was this reason that induced Rolfe to rename the epiphytal species *P. simulans*, under which name it is now recognised.

The intercrossing of the genus *Phaius* was first commenced in 1887 in the celebrated collection of Norman C. Cookson, Esq., Oakwood, Wylam, Northumberland, and it is interesting to note that the species *P. simulans* (then under the name of *P. tuberculosus*) was used as the pollen parent with *P. Wallichii*, and produced *P. Cooksonii*, the first hybrid of pure *Phaius* parentage which flowered in 1890. Since then Mr.

from higher elevations, naturally requires a less degree of heat. In the collection of R. J. Measures, Esq., Cambridge Lodge, Camberwell, it grows freely at the coolest end of the *Cattleya* house, and quite recently a plant there has produced a spike of eight flowers. To the hybridist this is a plant of great importance, as he is now provided with better material to work with. Until the present no hybrid has been recorded from it, but no doubt there are many seedlings fast approaching the flowering stage. A suitable compost in which to grow these plants consists of equal parts turfy loam, peat, and partly decayed Oak leaves, together with a small quantity of chopped sphagnum moss, and plenty of small crocks and silver sand added to render the whole porous.

Westonbirt Gardens. H. G. ALEXANDER.

[Owing to a printer's error the last "u" is an "i" in the word "tuberculosus" on the plate.—ED.]

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

HARDY PLANTS FOR CUTTING. Iceland Poppies are very useful for cutting. Sow seeds thinly in August in well-pulverised soil. If sown outside or in boxes in a cold frame, prick off into other boxes, winter in a cold frame, and plant out early in spring. Sow a few seeds annually. On rockwork or on a well-drained site some plants assume a perennial character. The seeds are small, and must be covered very lightly. Self-sown plants are generally very strong.

Coreopsis grandiflora.—Though this is classed with the perennials, it is best to sow a few seeds annually, as the plants flower so freely. Many plants die in the winter from exhaustion. It is one of the best yellow flowers for cutting we have, being light and graceful.

Chrysanthemum maximum (Ox-eye Daisies).—There are quite a number of varieties of these now. C. Johnsoni is one of the best of the large-flowered sorts. It is very robust in habit, and flowers more in succession than the type, especially if broken up and transplanted to a fresh site every two years.

Erigeron speciosus superbus.—This is an excellent plant for cutting, and there are so few things of this shade of colour (mauve) which flower for so long a time. It is, like all the things we are naming, a cut-and-come-again plant; the more it is cut the more it flowers. If raised from seeds, sow in boxes in a frame as soon as they are ripe, and prick out when large enough to handle in a nursery bed. All hardy things raised from seeds should have this treatment.

Scabiosa caucasica.—The Russian Scabious is one of the best flowers for cutting. It produces its large, salver-shaped, mauve-coloured flowers very freely all the summer. Old plants very often die off in winter, so the stock should be replanted annually either by division or seed. The division should take place before the plants become exhausted by flowering. Many are raised from seeds. It is best to sow in a box in a frame, though the plants may vary a little from seeds. All will be found useful.

Gypsophila paniculata.—This is a very useful plant for cutting. Though the flowers individually are small, it lasts in season some time. It has not inaptly been called by florists the Fern-saver, because it can be used as a base for other flowers. It is best raised from seeds where much stock is wanted, though old plants with several crowns may be divided. It has thick, strong roots, which descend deeply into the ground, and should be planted in a well-broken-up site. It is not a good grouping plant, and is best grown as a small bush in the borders.

Pyrethrums, double and single.—Propagation by division is best done in spring early in April. Mulching and watering will be necessary to give the young plants a start. If raised from seeds the seedlings will flower the second year. They make handsome groups in the border. Among the doubles the following are good: Mont Blanc, white, early and free; Niobe, lilac; and M. Barral, rosy crimson. Good singles are Warei, crimson; Gertrude, bluish; James Kelway, crimson-scarlet; and Juno, rose. The singles are the most popular. For cutting one scarcely wants many sorts.

Bulbs in the Flower-beds.—There are two ways of dealing with these. One may leave them in the beds and plant the summer flowers among them. This may answer for some things, but it always, till the foliage of the bulbs die down, has an untidy appearance, and, like all compromises, each crop has to make some sacrifice, and to cut off the foliage is very hurtful to the future flowering of the bulbs. Neither can the beds be properly prepared for the summer-flowering plants when the bulbs are left in the ground. The best way is to take up the bulbs carefully with all the soil that will adhere to them and plant them elsewhere to ripen, and then dry them off and keep them in a dry state till planted again in the autumn. The beds can then be properly prepared, and, if necessary, manured for the summer bedding. The best manurial dressing is a compost chiefly of charred garden rubbish mixed with old potting soil and a little short manure.

White Foxgloves.—These make very effective groups in the wild garden, and will, when once started, look after themselves. We have found it best to raise the first batch of plants in the kitchen garden, sowing the seeds now, and transplanting to the spots they are to occupy. Afterwards let them sow themselves in a natural manner, scattering in picturesque groups. A companion plant to this is the common Evening Primrose (*Oenothera biennis*). Both these plants show up well among dark-leaved shrubs.

Fungoid Diseases and their Remedies.—What is known as Bordeaux mixture is a preparation of copper sulphate. It is easily applied by spraying, and is not expensive. We learn from a little pamphlet published by Messrs. Tomlinson and Hayward, horticultural chemists, of Lincoln, that 1lb. of Bordeaux mixture, added to ten gallons of water, will be the minimum strength for most things, and, assuming that 120 gallons are required to spray an acre of Potatoes, the cost of the mixture would work out at 7s. 6d. per acre.

The Beginner's Difficulties will certainly include troubles with fungus, and he will find a cheap, easy way of destroying fungus spores on the full-grown plant very serviceable. Spraying with sulphate of copper, according to our present knowledge, seems the cheapest and best remedy. The mixture may be sprayed over Potatoes, Roses, Vines, Carnations, and all other plants liable to fungus attacks.

Tomatoes in the Open Air.—Large growers very seldom raise their plants in pots. The seeds are sown in warm frames on slight hot-beds in March, and are transplanted to other frames when large enough to handle. Being always near the glass, the growth is sturdy, and when planted out a robust start is soon made, the progress being rapid. Unless planted against a wall or wood fence this must have a sheltered sunny spot, and be trained to stakes. Do not crowd. Plant in rows 3 feet apart and 18 inches between the rows, and train to a single stem, all side-shoots to be rubbed off promptly. When four trusses of blossom have been made stop the leaders, and pinch all growth in close. By giving the plants plenty of room all the foliage may be left on till nearly the end of the season, and the air and sunshine are required to ripen the fruit. If the land has been fairly manured, there will not be the necessity for using strong stimulants, which sometimes, when used in excess, may cause the fruit to crack. If the land has been

deeply worked during the winter or spring make it firm before planting by treading, as all things do best in firm land, provided it is not the firmness of unmoved, unworked land. Run the hoe through the surface between the plants once a week if possible, and there will be no trouble with weeds or disease. Up-to-Date, Holmes' Supreme, Early Ruby, and Challenger are good varieties.

Brussels Sprouts.—This is still one of the best of the winter vegetables, and there is not the same difficulty in obtaining a good strain of seeds as was the case years ago, when it was thought imported seed was the best. Every good seed house has a specially-selected stock, and this care in selection is worth paying for. Sow for the first crop indoors in February, and prick out the plants in a sheltered spot outside when large enough, and plant out finally in May, towards the end of the month for the earliest crop, in rows 3 feet apart and 18 inches to 20 inches between the plants. Sow seeds outside in March or April for later use. As a dish of Brussels Sprouts is always appreciated, the early-planted lot will come into use during autumn, and should be used when ready. When the Sprouts are young very large old ones are not so good as the medium-sized young ones.

What is meant by mulching and its objects.—The term mulch is, we think, from the German, and, literally, means rotten straw, but the term with us has a wider meaning. Anything placed on the surface of the ground to conserve its moisture by checking evaporation or to afford nutriment to the plants is, in garden phraseology, mulching. If we want to nourish the plants we use manure. If the object is merely to check evaporation a freely-stirred surface will suffice. If one wants crisp, cool Lettuces in the summer spread a layer of manure among the plants.

Mulching Raspberries.—A covering over the roots of Raspberries is a great help to them, and saves much labour. Other things, such as rotten leaves or grass mowings from the lawns, are sometimes used to check evaporation.

Strawberries are Mulched with Long Litter, for the double effect of checking evaporation and forming a clean bed for the fruit. The term "top-dressing," often used by gardeners, is merely a form of mulching. A couple of inches of rich compost placed on the surface of a Vine or any other fruit tree in a pot is a great help, and will serve to illustrate the principle of mulching or top-dressing where nourishment is required. On the other hand, where the hoe is used freely enough to maintain a loose surface, that suffices often to keep the moisture in the soil.

Open-air Grape Vines.—When Forsyth, the Royal gardener, wrote his book upon "Fruit Culture" early in the last century, open-air Grapes received a good deal of attention, and these, thinly trained on a warm south wall, were good. But cheap glass has led to the Grape Vines in the open air being neglected. With properly-made borders and the roots nourished by suitable top-dressings, which should include some chemical manure, bone-meal, and old plaster or lime in some form, and more care taken with the pruning and training, the cottager in the country may again live under the shade of the Vine and Fig tree.

GARDENING OF THE WEEK.

FLOWER GARDEN.

GENERAL REMARKS.—The most important work connected with the flower garden at present is gradually to harden off tender summer-bedding plants, Pelargoniums, popularly called Geraniums, being still largely used for this purpose. Autumn-rooted cuttings that were potted early or mossed, as advised in a previous calendar, and are now bristling balls of roots, should be moved into cold pits, where temporary protection can be afforded them should frost occur. Pot on or moss later spring-struck cuttings as they become fit, and keep them growing on sturdily, as many are yet small.

TUBEROUS AND FIBROUS BEGONIAS.—These form another class extensively used for bedding and grouping, and are well adapted to succeed, so to speak, the Geraniums, for practically, in humid districts especially, no Geraniums bloom freely after the first half of September at the latest, except it be an exceptionally dry fine autumn. By then the Begonias have become a prominent feature, blooming well in rain or sunshine until cut down by frost. Most of the tubers by this time will have started into strong growth, and these should be the first to be turned out into the pits, either planting them for the time being in light, rough leaf-soil, or boxing them thinly in the same material. Keep them close and slightly shaded for a few days only until the roots commence to work into the fresh material, when air must be admitted freely, even to full exposure during favourable weather, but efficiently protected from even a suspicion of frost. Thus will the foliage attain that crispness and stiffness indicative of vigour and health.

SEEDLINGS of the same should eventually be worked on similar lines, but not yet. In the meantime keep them growing freely, thinning out and re-boxing frequently, affording ample room for development to root and leaf without becoming drawn and thin. It is essential to give these as long a season of unchecked growth as possible to ensure a good show of bloom during their first season. The same treatment in the main applies to the fibrous section. They are best raised from seed annually, but as they approach the blooming stage from the sowing in much less time than the tuberous kinds it is neither necessary to sow so early nor push them on so hard. Although the flowers are many sizes smaller than those produced on tuberous varieties, they are nevertheless indispensable for grouping, the leaves of most assuming a glossy attractive hue as the season advances, so that flower and foliage combined produce very fine effects. Keep gradually moving the varied stocks of bedding plants from the warmer to cooler structures, according to condition and hardness, avoiding sudden checks through sudden changes, and press on with propagating whatever is likely to be short. Even late stock is often acceptable and useful to complete arrangements.

ANNUALS, such as Phlox Drummondii, Dianthus, Margaret Carnations, Salpiglossis, Asters, Stocks, Zinnias, Petunias, Nemesis, Alonsoa, Delphinium, &c., that were raised in more or less heat and subsequently pricked out must now be exposed to the weather unless actually frosty, for the time is near for their transference to their allotted quarters.

THE SPRING GARDEN being now gay—at its best or just passing out of it—care must be observed in keeping everything in perfect order and neatness, giving an inconspicuous stake where absolutely necessary, adding a tie here and there where the flower-stems have grown and likely to topple over or snap. Pick off dead leaves and blooms, and pull out all weeds. Keep the edgings neatly trimmed, lawns and grass verges regularly mown and clipped, and the walks perfectly clean and frequently rolled.

The Gardens, Tan-y-bwlch, North Wales. J. ROBERTS.

INDOOR GARDEN.

PRIMULA KEWENSIS.—This plant has come rapidly to the fore as a decorative subject, being a great improvement on both its parents. So far increase of stock has to be done by division, although I believe a few seedlings have recently been raised by Messrs. Veitch. After flowering shake out the old plants and cut up into single crowns. Those with roots can be potted up singly and placed in an intermediate house. Insert the remainder as cuttings, either singly or four or five in a pot in light sandy soil. Place under a hand-light or bell-glass in the same house. If stock is limited the old flower-spikes may be put in as cuttings. Cut off just below each whorl from which growths are often obtained. Use a compost of three parts loam and one of leaf-mould, with plenty of sharp sand for potting on. If a few larger plants are required, select some of the stronger, and pot on into 7-inch or 8-inch pots.

FERNS.—The majority are now growing freely, and plenty of atmospheric moisture will be necessary. As the young fronds develop, rearrangement of the plants must be done from time to time to prevent overcrowding. The proper shading of Ferns is important. On the south side of the house it is as well to put on Summer Cloud, rolling down the blinds during the brightest part of the day. The position occupied by the different genera in the house has much to do with their well-being. Adiantums and Gymnogrammas are much better if grown in a lighter position than Polypodiums and Platyceriums for instance. Syringe the stems of Tree Ferns occasionally with weak manure water. Where a number of Ferns are grown, it is advisable to raise a few young plants each year.

HARD-WOODED PLANTS.—Plenty of work can be found amongst these plants at the present time—pruning into shape, cutting back, potting, and top-dressing. The potting of Epacris and Erica hyemalis should by this time be completed. Careful watering and ventilation are necessary, especially after potting. The cold winds recently experienced are nearly sure to bring on mildew. Sulphur the affected parts as soon as detected. Cut back Boronias as they pass out of flower. Pick off old flowers and seed-pods, and encourage the growth of Azaleas. Eriostemons require little pruning, cutting off the long growths to keep the plants in shape is all that is required. If possible all the hard-wooded plants should be grown together. Syringe the houses on all favourable occasions.

GENERAL REMARKS.—Prune Gardenias into shape as flowering ceases. Clean thoroughly, as they are very subject to insect pests, especially mealy bug. Pot or top-dress when breaking into new growth. Insert cuttings of Thysanacanthus rutilans and Peristrophe speciosa in a propagating frame with bottom-heat. The earlier rooted cuttings of Gloire de Lorraine are ready for potting on. Where large specimens are grown the house is better if shaded rather heavily. Keep up a warm moist atmosphere. Pot on Acalypha hispida. Sponge once a week and syringe frequently, otherwise red spider will soon make its appearance. Stake Achimenes in pots. Little or no staking will be required by those in baskets.

Royal Botanic Gardens, Kew.

A. OSBORN.

KITCHEN GARDEN.

CUCUMBERS.—Where space is limited, frames that have been emptied of bedding plants can be very profitably occupied with Cucumbers prepared for this purpose. Grown in frames their fruits may not be quite so shapely as if grown in pits or forcing houses, but for salads they will equal those grown in more pretentious structures. As a little warmth at the roots is necessary to give them a start, some leaves and stable manure should be collected, and prepared as advised for climbing Beans in a former calendar. Should heating material be scarce its warmth can be husbanded by throwing out the soil in the centre of the ground where the frame stands, and filling it up with the heating substance in the form of a mound. Surrounded by mother earth the heat will be maintained for a greater period. This simple fact is often overlooked. Cover the mound with thin turves and the remaining part with fresh soil. Make it a point to have the frame and plants ready at the same time. When the young Cucumbers have been planted give shade to prevent flagging for the first day or two only, and cover with mats at night.

MUSHROOMS.—Where it is desired to grow these out of doors, horse-droppings should now be collected and prepared as formerly advised. By the time the Mushroom spawn has begun to run, night temperatures should have become higher and Mushroom growth more active. When making up the beds choose a shady spot where the drainage is good. Behind a north wall is a favourite position, but Mushrooms succeed well out of doors on beds made in the form of a ridge. The material for these must be quite 3 feet deep in the middle. For protection hurdles thatched with straw answer very well, as by this means heavy rains are thrown off and the surface of the beds kept in a nice buoyant condition for Mushroom growth.

PEAS.—A sowing must now be made for keeping up the necessary supply. The Telephone variety is admirable, being wonderfully exempt from attacks of mildew, a free cropper, and of delicate flavour. Prince of Wales is also a Pea which should be included in this sowing. Its haulm does not attain a great height, and its robust constitution helps it to resist blight and mildew, while its flavour is delicious. Continuity is also a late Pea that I can confidently recommend for its robust constitution, heavy cropping, and rich flavour.

CHOU DE BURGHELY.—It seems to me that the virtues of this delightful vegetable are not sufficiently advertised in seed lists. To my taste its flavour is infinitely superior to the finest of garden Cabbage, which vegetable it so much resembles in appearance. Its hardness should also recommend it to vegetable growers. A sowing made now will turn in useful for autumn supplies, and another sowing made about the second week in June will be ready in time to furnish a welcome addition to the spring supplies.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

ORCHIDS.

EPIDENDRUMS.—Such Epidendrums as E. Schomburgki, E. Ellisii, E. evectum, E. radicans, E. arachnoglossum, E. cinnabarinum, E. o'brienianum, E. radico-vittellum, E. radico-xanthium, and E. Boundii all bloom at this season, and are well worth cultivating. Their easy management renders them very suitable for beginners in Orchid culture, and amongst the Epidendrums there are few which continue so long in flower. Strong growths will often produce a panicle that will keep on opening flowers in succession for several months. At Burford a plant of E. Ellisii began to open its flowers the first week in January, and is quite fresh now. It is likely to continue so for several weeks longer. All the Epidendrums mentioned are very useful for cutting and for decorative purposes generally. These plants will grow thoroughly well in a light position in the intermediate house, and plenty of water should be afforded them all through the growing season. Repotting may be done after the flower-spikes are cut or when growth recommences, and they will root freely in the usual Orchid compost, but prefer rather more sphagnum moss than peat. The well-known Epiphrontis Veitchii also produces its cinnabar scarlet blooms at this season, and in some collections where a considerable number of this

lovely hybrid is cultivated flowers are to be seen almost the whole year round. E. Veitchii should be grown as advised for the above-mentioned Epidendrums. The majority of the plants enumerated are very easily propagated by taking the offshoots which appear on the old growth and flower-stems and inserting them thickly around the edge of a flower-pot, in well-drained sphagnum moss and coarse silver sand. Those varieties which have a scendant habit like E. radicans should have the shoots tied around neat stakes, keeping the young growths well up towards the light.

LÆLIA CINNABARINA, also in bloom now, is a plant that, from its distinctly coloured bright cinnabar red flowers and the length of time it lasts, deserves to be more generally grown than it is. The plant will thrive in shallow Orchid pans that may be suspended well up to the roof glass of the house, and it is important that these pans should be small in proportion to the sizes of the plants that are put in them. Plenty of drainage should be afforded. I have found it to succeed better with less sphagnum added to the peat than most plants. It will generally be found to do well in a light, airy part of the intermediate house. Another Orchid with bright cinnabar red flowers which blooms at this season is

LÆLIA HARPOPHYLLA.—After the flowers fade the compost should be kept just moist, and when growth recommences it may be repotted if necessary. The ordinary Orchid compost will suit it, but the plant does not require much root space. Plenty of moisture is necessary till growth is completed. The coolest part of the intermediate house is the best place for it.

PHALÆNOPSIS.—Such plants as Phalænopsis schilleriana, P. amabilis, P. Aphrodite, P. stuartiana, P. leucorrhoda, and P. Esmeralda are commencing to make new leaf growth, and young roots are becoming numerous. It is now a good time to examine these to ascertain if more space for the roots is required. If the potting materials are decayed they should be replaced with fresh. Phalænopsis may be cultivated with success either in Teak wood baskets, Teak cylinders, or shallow pans. When it becomes necessary to place the plants into larger receptacles, the old material and the drainage should be carefully picked out, then the baskets, &c., should be dipped in tepid water for a short time, so that the roots may be detached from the wood with as little damage as possible. Those that are to be grown in baskets or cylinders should have plenty of new crocks afforded for drainage. Place the plant in the centre with the collar well above the rim, then spread the roots out and carefully work in amongst them some chopped moss, add a moderate quantity of broken crocks, and press it moderately firm around the base of the plant; then surface the whole with clean, fresh moss. Those to be grown in pans may have dried Fern rhizome for drainage, the compost consisting of chopped moss, leaf soil, and small crocks, in equal parts, with a sprinkling of silver sand; this also should be covered with sphagnum moss. Suspend the plants on the shady side of the hottest house, and for the first few weeks after root disturbance keep the surface of the moss, and around the sides of the baskets, &c., just moist, merely sprinkling them occasionally with tepid rain water, using a fine rose watering-can. At the same time, every precaution should be taken not to allow water to lodge in the centre of the plants, otherwise the leaves will decay.

Burford Gardens, Dorking.

W. H. WHITE.

FRUIT GARDEN.

NEWLY-PLANTED FRUIT TREES.—These will require special attention till they have become established in their new quarters. They must not suffer for want of water at the roots, especially if new loam has been used in planting. It is almost impossible for water to penetrate new soil when once it has become dry, so when water is necessary make sure that sufficient is given to thoroughly saturate the soil about the roots. Mulch with short litter or any other suitable material that may be at hand. This will save much labour in a dry season, and will be of material benefit to the trees. Any trees that show signs of exhaustion must be syringed morning and afternoon when the weather is fine and mild.

PEACHES AND NECTARINES.—The spell of cold easterly winds which we experienced during the early part of last month was accompanied by the usual attack of aphids, and it has needed very persistent measures to keep it in check. Beside the periodical application of insecticide, the trees should be given a thorough washing with clear water in the afternoon during fine and mild weather. Cold winds will have favoured "blistering" on the leaves, and these must be picked off and destroyed. Keep a look out for the first appearance of mildew, and dust the affected parts with flowers of sulphur. Begin thinning the fruits by first removing the small and misplaced ones. Continue to disbud at regular intervals till the shoots have been reduced to the desired number. Trees which have been lifted or root-pruned must be occasionally examined and thoroughly watered when necessary.

RASPBERRIES.—Old plantations will receive much benefit if a good mulching of well-seasoned farmyard manure can be given to them. Much good may also be done by watering with diluted liquid manure whenever it is necessary. Remove suckers as they appear from between the rows, and thin out all weakly growths from the stools, retaining only sufficient for the production of next year's crop. The plants which are intended for the autumn supply produce, as a rule, far too many growths. If these are not severely thinned the crop will probably be very disappointing. Examine trees which have been recently grafted, and if any of the clay has cracked or fallen off it must be replaced. The clay must be kept moist by damping with a fine rose or syringe.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

THE KITCHEN GARDEN.

EARLY CABBAGES.

I SHOULD not have troubled you with this note, as most large growers have experienced the same results as given on page 144, of a few early Cabbages being fit to cut on February 18, but it is asked, Is it a record? I think not, as in our own case we have cut Ellam's Early Dwarf in February, and even in January when the seed was sown early. Another point that may be overlooked is that field Cabbage, when sown early and planted out before the plants get drawn, do so much better than in a garden where the plants are hardier, and they grow away more freely. The same plants in an enclosed garden, sown at the same time, often run to seed. In a garden there is too much coddling, if the phrase can be used, and the seedlings are frequently grown year after year on the same site, which has a tendency to weaken the plants. Last spring (early in March) I saw good breadths of field Cabbage, the variety being Earliest of All, in Hampshire, and was surprised to see them so early. The seed was sown the first week in July, and the seedlings were planted out in August when quite small. Doubtless these resemble Webb's Emperor as regards earliness. They are most valuable, as the latter does not run to seed, a failing that some varieties have if sown at all early, or left too long in the seed-bed.

GROWER.

RHUBARB FROM SEED SOWN IN SPRING.

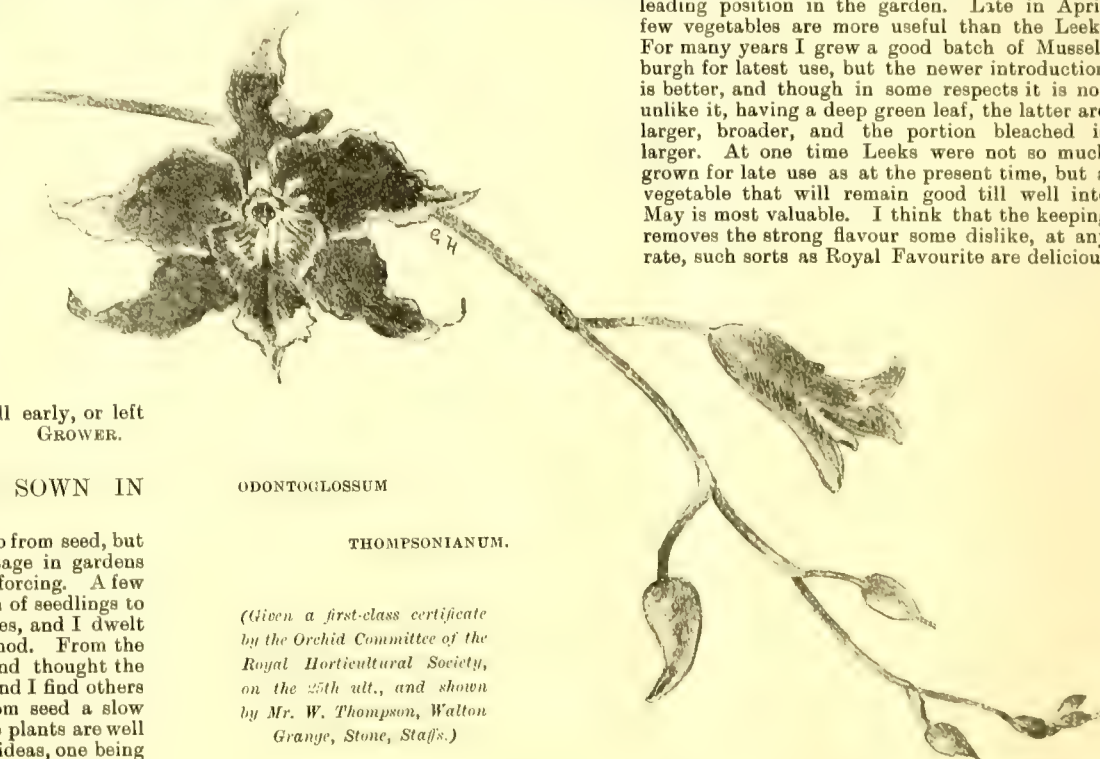
It is not unusual to grow Rhubarb from seed, but it could often be done to advantage in gardens where quantities are required for forcing. A few years ago I was showing a breadth of seedlings to a well-known grower of vegetables, and I dwelt upon the advantages of this method. From the appearance of the plants my friend thought the seedlings three times their age, and I find others think the raising of Rhubarb from seed a slow process. It certainly is not if the plants are well grown; and there are other false ideas, one being that it is out of the question to get plants from seed true to name. This is an error, of course. Much depends upon how the seed is saved, but this being true the plant rarely fails to be equal if not superior to the parent, as it has splendid vitality, and for some seasons is most vigorous. Seed sown this month in well prepared soil will give splendid forcing roots the second winter, but much depends on the seed at the start. It must not be crowded, and transplant early. For forcing I much prefer it to larger roots, or pieces of old plants. The seedlings should be given an open sunny quarter, and I should advise seed from other sources. I do not care for home-grown, unless it is a distinct variety one wishes to grow on, and then the seed should be grown away from other plants.

G. WYTHES.

CAULIFLOWERS.

THE common complaint that Cauliflower heads are exhibited of too large a size, has some basis at some exhibitions, where judges ignorantly encourage mere size but it does not, as a rule, apply to the heads shown by first-class growers. No good judge of exhibiting material puts up a pile of huge Cauliflower heads that are not in harmony with the other exhibits staged, hence in any good collection a great effort is invariably made to equalise or balance the respective dishes, and thus produce a perfect whole. But

Cauliflowers need not necessarily be allowed to develop to an inordinate size. If the ground in which they are planted be highly enriched with manure, and the plants wide apart, heads develop into great size rapidly, and often are large before being noticed. Still great size is practically inevitable in such a case. To have heads of more moderate dimensions it is better to plant rather closer, as that checks excessive leaf development, but it is not well to have the ground poor for Cauliflowers, as being large leaf-producers they are gross feeders. Still farther, the more quickly the white heads are produced the more tender are they for eating. For table or for exhibition solid white heads, 6 inches in diameter, are amply large for all purposes. The Early Forcing, Snowball, or Matchless type, as a rule, produce heads of this size quickly on a warm border, if put out some 18 inches apart each way, and quite



ODONTOGLOSSUM

THOMPSONIANUM.

(Given a first-class certificate by the Orchid Committee of the Royal Horticultural Society, on the 25th ult., and shown by Mr. W. Thompson, Walton Grange, Stone, Staffs.)

a large crop can thus be taken from a small area of ground. All later are fairly strong growers and need close watching to prevent undue development. Unfortunately, a breadth turns in so simultaneously that some heads are overlooked, become too large, and, as a result, are generally wasted.

A. D.

AN EARLY FORCING LETTUCE IN SPRING (GOLDEN BALL).

FEW vegetables are more important than early Lettuces, and though, of course, the Lettuce comes under the heading of salads it is important to have Lettuce with a compact solid heart as early as possible. Unlike many other vegetables it will stand hard forcing; by this, I mean it may be grown in heat from start to finish. This season Sutton's Golden Ball from seed sown the first week in February was fit for use within three months, that is, in less than thirteen weeks there were compact little plants with close hearts. As in a private house the most edible portion is the heart, the other, though equally good, is often wasted. It is a great gain to have such varieties that take up little room, grow rapidly, and are attractive when sent to table. I have referred to heat, but with prepared manure and a close frame, the glass

being covered at night with mats, growth is also very rapid once the plants get a good start, avoiding extremes of temperature. For a few seasons I have advocated in THE GARDEN the value of Lettuce sown as early in the year as possible under glass. How much superior these are to those grown on open borders, I mean with regard to the quality. When such sorts as Golden Ball are grown the gain is great. We grow several varieties in this way, but as regards earliness Golden Ball is one of the best. The old Commodore Nutt is little inferior, and for succession Veitch's Golden Queen is difficult to beat.

G. WYTHES.

A LATE LEEK—ROYAL FAVOURITE.

Those who require a varied supply of vegetables of the best quality as late in the spring as possible, would do well to give Sutton's Royal Favourite a leading position in the garden. Late in April few vegetables are more useful than the Leek. For many years I grew a good batch of Musselburgh for latest use, but the newer introduction is better, and though in some respects it is not unlike it, having a deep green leaf, the latter are larger, broader, and the portion bleached is larger. At one time Leeks were not so much grown for late use as at the present time, but a vegetable that will remain good till well into May is most valuable. I think that the keeping removes the strong flavour some dislike, at any rate, such sorts as Royal Favourite are delicious

when cooked, having a mild agreeable flavour so different to the Onion. It is surprising what good plants may be had for the supply at this season with quite ordinary culture. It is not necessary to make trenches. Plants grown in shallow drills on the flat, in well-manured deeply-dug soil, give good results indeed. Grown thus, such varieties as Royal Favourite may be had large enough for any purpose. The stems blanch easily by moulding them up in the late autumn.

G. W. S.

ODONTOGLOSSUM THOMPSONIANUM.

THIS is one of the most remarkable Odontoglossums ever exhibited. It is the result of a cross between *O. crispum* and *O. Edwardii*, and partakes of the character of both parents. The flowers, which are the size of a small *O. crispum*, have the shape of this species, and are deep chocolate-crimson, with the end of each sepal and petal tinged with purple. The lip, which is rather pointed, is also chocolate-crimson, with purple tip. The flowers are produced at the end of a long scape, as in *O. Edwardii*. The plant shown before the

Orchid committee of the Royal Horticultural Society on the 25th ult. had seven flowers and buds upon a scape about 4 feet long, and laterals were developing below. A first-class certificate was awarded to this plant, which was shown by Mr. W. Thompson, Walton Grange, Stone, Staffs (gardener, Mr. W. Stevens).

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

Legal Points.—*We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."*

CYPRIPEDIUM (E. F.).—The *Cypripedium* sent is the true *C. mastersianum*, an East Indian species. It may have been a seedling, but we are quite sure it is not a hybrid. The length of the flower stem is one of the distinctive characteristics of this species; it is often 2 feet high.

INCREASING THE SIZE OF VIOLET FLOWERS (E. J. P.).—Your plant is an interesting form of the common sweet-scented Violet, *Viola odorata*. With liberal treatment it should make a useful variety. Are your plants growing in an exposed position? This would cause them to die down. Select a piece of ground shaded somewhat during the hottest part of the day, preferably a piece dug and richly manured in autumn. Divide the plants into single crowns and plant 1 foot apart, and syringe in the evening after a hot day. Hoe the ground between the plants frequently. You could make the bed of a suitable size for covering with a frame in autumn.

PLANTS FOR BORDER (Woodbank).—You have, unfortunately, omitted to say of what the hedge is composed, and there is a wide difference between Holly, Privet, Quick or Thorn, Hornbeam, and Beech. However, you had better as a precautionary measure dig out a deep and wide trench the entire length of the hedge at 2½ feet from its centre, and in this way cut away all roots with which you come in contact. The Whitethorn, while not producing so great a mass of fibrous root, will send out superficial root thongs to a dozen or more feet from the hedge bottom, and all such must be got rid of before you will obtain any good results from planting. In any case you will be well advised not to plant nearer the hedge than 3 feet. The ground will require trenching and manuring. The width you name is hardly sufficient for the length, and if it can be spared 7 feet would be better, of which 4 feet could be planted with some hope of success. You have asked us for advice, and our suggestions, we trust, will be accepted as such. If you can follow these suggestions we think in this somewhat shady border many Lilies would be quite at home, such, for example, as *L. candidum*, *L. speciosum* in variety, *L. tigrinum* in variety, and many more. It is late for planting many of these now, and we think you would obtain a good display from such things as single and double Sunflowers, *Kniphofias*,

Bocconia, *Michaelmas Daisies* in variety, *Perennial Pea*, *Day Lilies*, and *Gaillardias*, while nearer the front you might plant freely *Flag Irises* and *Pyrethrums*. The former of these could be planted in a dozen kinds quite well, and we feel sure their delicate shades would appeal most strongly to you. Other useful subjects would be *Aster Amellus*, *Rudbeckia*, *Oriental Poppies*, *Echinops*, *Trollius*, &c. In the autumn *Daffodils* could be introduced, and the places to be occupied then by these bulbs could now be planted with an assortment of early-flowering *Chrysanthemums*. Sweet Peas could be planted, and any annuals you choose. Too frequently the shady border is neglected, yet it often happens that a large number of plants do uncommonly well. Write to us again if you think we can further assist you.

ANNUALS TO SOW (Annual).—Besides those named in your letter you could sow *Candytuft* in several varieties, hybrid *Dianthus* or *Indian Pinks* (*Eastern Queen* and *Crimson Belle* are good sorts), *Nemophila insignis*, *Linum grandiflorum*, *Sweet Sultan*, and *Alyssum maritimum*. You have left the seed sowing somewhat late, and to obtain the early flowering you name the seeds should have been sown in March or very early April. Sweet Peas would be excellent, but to have these in flower so early you should sow in pots in frames, and plant out early in April. The *Cupid Sweet Peas* are a very dwarf race, not more than 6 inches high, and in any district where these are a success they are very serviceable. Many other annuals could be named. Those given, however, reach the flowering stage rather quickly, and, with the exception of *Sweet Sultan*, which could be hastened by sowing in a frame or cool greenhouse, the others would be best sown in the open garden.

PLANTING A HEDGE (Washington).—We should certainly advise a live hedge in preference to a fence, and there are many subjects available for the purpose. There is nothing equal to the *Yew* and *Holly*, but, as you say, they take some time to grow, though, if good well-rooted plants a couple of feet high are obtained, the height you mention for the fence (3 feet) will not take long to be reached. The *Privet* is, of course, a much quicker grower and a good deal cheaper. The *Beech* and *Thorn* are deciduous, and the first named would, we think, be too tall for you. *Lawson's Cypress* (*Cupressus lawsoniana*) forms a beautiful quick-growing hedge, and it bears cutting well. This would in all probability suit you better than any other. The *Sweet Briar* makes a beautiful screen, but it is deciduous. If your district is not too cold *Berberis Darwini* can be recommended. The *Osage Orange* can be obtained here, but not in quantity, and it is too tender for the purpose named by you. The *Optimus Turf Cutter*, figured in *THE GARDEN* for April 22, page 246, is a very useful tool for cutting the edges of the grass.

FERNERY, &c. (B. G.).—You might make a very pretty fernery in the position you name. It would, perhaps, be better to give more light if possible; Ferns, although supposed to be such shade-loving plants, will stand a good deal of sunshine, yet, if the full benefit of all the light is obtained from each end, there may be sufficient for most Ferns to do well. There is a large number to select from; those from North America, Japan, and many of our British Ferns should do well. Of the latter, the common *Polypody*, some of the best varieties of the common *Hart's-tongue*, *Polystichum angulare*, *P. aculeatum*, *P. Lonchitis*, and others, *Adiantum capillus-veneris* and its varieties, *Lastrea pseudo-mas* and its varieties, *Asplenium adiantum nigrum*, *A. trichomanes*, *Allosorus crispus*, and *Osmunda regalis*. Of Japanese Ferns, *Davallia bullata*, *Osmunda palustris*, *Lastrea Sieboldi*, *Polystichum concavum*, and *Cyrtomium falcatum*. Of those from America, *Asplenium ebenium*, *Adiantum pedatum* (deciduous), *Cystopteris fragilis*, and

Woodwardia radicans americana. Of *Selaginellas*, *kraussiana* or *denticulata* is one of the best; *serpens Browni* and *densa* will do well. For the house, *Habrothamnus elegans* and *Plumbago capensis* planted out will flower well all through the season. *Campanula isophylla alba* in baskets suspended from the roof would be pretty. Some of the *Cannas* of the *Crozy* varieties do well, both foliage and flowers being showy, either planted out or grown in large pots they always look nice. *Camellias* would also do well, and several of the *Acacias* would do planted out or in pots. For the rockery under glass, to make a show in summer, you might put in any ordinary greenhouse plants, such as tuberous *Begonias*, *Fuchsias*, and *Pelargoniums* (any of the *Cape species*). For spreading underneath, *Tradescantia zebrina*, *Ficus repens*, and *Campanula isophylla*, blue and the white. *Solanum jasminoides* and *Sollya Drummondii* would cover large rocks. Much depends upon the arrangement of the rockery and the space to cover. Among small stones some of the *Cacti*, *Sempervivums*, and other succulents would do well.

TO PRESERVE THE COLOURS OF PRESSED FLOWERS (May F.).—It is not easy to give a general rule for this, as different kinds of flowers require different treatment. Do not press a bunch of flowers together; spread them out so as to be clear of each other. If you have a bunch of *May snip* out half the flowers and press them separately; then if necessary you can put them back again after they are dry. In some flowers it is necessary to separate the petals and press them singly, and then put them back again, as in a red *Poppy*. Juicy flowers, like *Bluebells*, must not be pressed very hard at first, and the blotting-paper must be frequently changed and warmed, as they take a long time to dry, while *Harebells* can be pressed harder and dry quicker. To get the flowers to look well requires much care and patience and constant attention; there is no short way of attaining it. It is better to press several specimens of the same flower, and then after they are dry choose the best ones to stick down on paper. The best stuff I have found to stick them down is cold French glue, bought in little bottles at the artists' colourmen; very strong gum will do. Stems and sticks should be held down with little slips of paper. Do not stick flowers in books unless you want to fill the book with patterns for ornament. Separate sheets of cartridge-paper are better for a botanical collection.—R. J. G. R.

FRUIT BOTTLING (J. Hartree).—The following we have found an excellent and successful way of preserving all kinds of fruit. The bottles must be perfectly dry and the fruit fresh. To every pound of fruit add half a pound of sugar (castor or granulated), and one heaped dessertspoonful of glaciale. Sprinkle the sugar and glaciale between each layer of fruit, the last upper layer having a more liberal sprinkling than the others. The bottle (a wide-mouthed one) should be shaken and filled quite to the neck, then tied with bladder or air-tight papers. Tie a piece of newspaper lightly over this to prevent its cracking in the oven. Place the bottles in a cool oven or large vessel of water on the stove, and let them stand until the fruit sinks and some juice is seen. It does not matter if the sugar is not all dissolved when taken from the fire, as that will dissolve afterwards. If the bottles are placed in vessels of hot water some straw should be put under and between them to prevent them touching one another. The water should never boil—only just come to boiling point. A large cool oven is the best. After gently attaining to this point of heat, let them as gradually cool down until quite cold. Treated in this way and stored away in a cool dry place, they will last in good condition for any reasonable length of time. Any of the following fruits may be preserved in this way: *Peaches*, *Nectarines*, *Apricots*, *Gooseberries*, *Currants* (black and white), *Raspberries*, *Strawberries*, *Cherries*, &c.

BISHOP'S WEED (*Victim*).—We regret we are unable to assist you in getting rid of this great garden pest, which in some soils is more than a nuisance. It is not usually found in the turf as in your case, and one would have thought machine mowing would have kept it in check. Even though you dug up the turf, &c., the smallest particle of root will grow, so that in this way the task is a hopeless one. Have you tried carbolic acid, first plunging a pointed stick into the bottle of acid and then into the growth points of the weed? This, however, requires using with extreme care. Many troublesome weeds are greatly weakened and diminished eventually by not permitting the leafage to grow, plucking it off as soon as it appears.

BROWN SPOTS ON GROS COLMAR VINE LEAF (*A. R. Merton*).—This variety is very subject to this disease. The foliage of this Vine in its young state is especially soft and sappy, and any moisture there may happen to be in the house seems to be attracted to it, saturating its foliage more than it does such varieties as the Muscats. This being so, its foliage naturally takes a longer time in drying in the morning, thereby exposing the surface of the leaves to the rays of the sun at a time when its power is greater, and when the globules of moisture are still clinging to the foliage, thus causing burning or scalding, hence the spot. The best way of overcoming this annoying difficulty is to have a little heat in the pipes during the night and early morning until the leaves are fully developed and well hardened. Leave a chink of air on the ventilators night and day, opposite to where this variety is growing, until the foliage is hard enough to stand exposure to stronger sunlight. Since adopting this practice we have been quite free from this complaint.

WHITE CAMPANULA FOR CARPETING (*B. T. S. M.*). *Campanula pumila alba* is the only white variety we could suggest, and this is practically deciduous in winter in many districts, the new growth appearing rather late in spring. For these reasons we do not think it is suitable, and again, all these dense growing Campanulas, the Harebell kinds especially, sooner or later take entire possession to the detriment, and often the exclusion of, the rightful or the original occupant. We should think a "mossy" Saxifrage as *Sternbergii*, *Stansfieldii*, *Indesiana*, or *hypnoides* elegantissima, all white-flowered kinds, more suitable, as these provide an evergreen carpet all the year round. These plants are more tolerant of the permanent things, which is important, and are easily increased or reduced, and much more quickly cover the ground. If not too large for your purpose we would mention the double white *Arabis*, a very fine plant. What are really suitable carpeting plants depends largely upon the plants that overtop them, and the plant, while being simple and rapidly increased, and submitting to transplantation at almost any time with impunity, should not be in flower with the other plant, nor should any carpeting plant be of an aggressive nature.

PLANTS OR ALMOST SUNLESS GREENHOUSE (*Devonia*).—The conditions being so adverse to the growth of flowering plants, only very qualified success could be looked for. As the house is unheated, this naturally reduces the number of suitable plants which might otherwise be grown. We think the *Camellia* might be grown successfully in such a structure, especially if the plants were in pots, and could be taken out of doors in summer and placed in some sheltered and partly shaded position in the garden from July to October. They would then flower in such a house for several months during winter. *Chrysanthemums* also would succeed well if taken under glass early in October. For the summer decoration of such a house we would suggest that *Fuchsias* grown in pots and trained under each rafter would prove a great success. The graceful pendant branches of these beautiful flowers hanging over the Ferns you propose to

grow would have a charming effect. During winter, whilst the plants are dormant, they occupy but little space, and may be stored in any spare corner of the greenhouse. *Passiflora caerulea* is another plant which would succeed fairly well under such conditions. This Passion flower is of comparatively rapid growth, and would furnish the walls and roof with pleasing foliage and beautiful hanging pale blue flowers in a short time. This is summer flowering. *Solanum jasminoides* is another decidedly beautiful free flowering climber that would succeed on the roof and walls of such a house, and its profusion of white flowers could not fail to give pleasure.

A FEW HARDY PERENNIALS AND BIENNIALS FOR NEXT YEAR'S SUPPLY OF CUT FLOWERS (*F. Lomas*).—You may sow many, or, we may say, the majority of our best hardy flowers during the present season, and gather flowers from them next year. Such, for instance, as *Erigeron speciosus*, *superbum*, the *Galegas*, *Delphiniums*, *Heleniums*, *Veronicas*, *Campanulas* (both biennials and perennials), *Achilleas*, *Anemones*, *Aquilegias*, *Coreopsis*, *Gaillardias*, *Lupines*, the *Lychnis*, and quite a host of other invaluable plants for cutting.

CHRYSANTHEMUMS—TWELVE GOOD EARLY AND MID-SEASON OUTDOOR KINDS (*F. F. L.*).—In reply to your request for twelve *Chrysanthemums* of the varieties mentioned, suitable for cut flower selling, in white, bronze, and yellow, the following are more likely to meet your requirements than any others we can name: *Carrie*, *Horace Martin*, and *Maggie* are three very excellent yellow varieties. White Japanese varieties are well represented by *Market White*, *White Quintus*, and the newer *Roi des Blancs*. The latter is a beautiful acquisition. Good bronze varieties are *Nina Blick*, *Rosie*, *Polly*, and *Rocket*. To complete the set you will do well to include *Crimson Marie Massé*, a rich chestnut bronze, and *Howard H. Crane*, a brilliant chestnut, flowering in October.

CHRYSANTHEMUMS—HOW TO GROW TWELVE GOOD BLOOMS ON DECORATIVE PLANTS (*E. C. A.*). Your list of varieties embraces quite an interesting series of plants and types of the *Chrysanthemum*, and you should have little difficulty in growing at least a dozen good blooms on each plant. We are glad to know that you do not want to grow exhibition blooms, as this will very much simplify the culture of the plants you name. Your selection includes semi-early, mid-season, and late sorts, so you should have no difficulty in maintaining a display from October till December. As your plants were rooted in January, you will be well advised to pinch out the point of the shoots at once. From this pinching take up three or four shoots of those that subsequently evolve, and when the first series of buds appear at their apex again take up two shoots. From this point the plants should be grown on to the terminal buds, and the latter retained when sufficiently developed. In this way each plant should carry at least twelve shoots to the terminal buds, and the best-looking and most promising bud on each shoot should be secured and the others removed. From the foregoing reply you will see that it is not necessary to pinch the plants more than once to achieve the object you have in view.

ALICANTE VINE BLEEDING (*William Redge*).—The Alicante Vine, in our experience, is more subject to bleeding after pruning than any other variety we know. Its wood is softer, and its sap vessels, we think, not so minute as other sorts, and its sap is more easily excited into activity. If copious bleeding takes places for any length of time, a sensible weakening of the Vine necessarily results. To stop the bleeding the cultivator's object should be to keep the Vine as cool as possible while it is in a dormant state, and let the point of the stem hang down as low as possible, at the same time persevering with Thomson's Styptic, which is the best preventive

we know. As soon as the Vine shows symptoms of growth by the swelling of the buds, this growth should be freely encouraged, as it is only when free growth takes place that the bleeding is effectually stopped, this growth appropriating to itself the escaping sap, thereby stopping the bleeding. As your Vine is now making free growth, we hope and believe that a stop will soon be put to it.

GERANIUMS (ZONAL PELARGONIUMS) FOR WINTER FLOWERING (*E. B.*).—Cuttings of winter-flowering Geraniums should be inserted at once, and potted up as soon as rooted. The cuttings should be rooted singly in 2-inch pots, and subsequently potted up into 5-inch pots. Just before putting the plants in their flowering pots the point of the shoots should be pinched out. This will have the effect of making the plants bushy. During the summer stand them outdoors on boards in a sunny position to ripen and harden the shoots, without which the plants will not flower during the winter. About the second week in September pick off all buds, and place the plants in their flowering quarters under glass, and from October till March maintain a temperature of from 50° to 55°. We should be disposed to cut back the leggy plants intended for summer bedding. Keep them rather dry for a time, they will soon break away again. Regarding the Ivy-leaved sorts, by all means stop the plants if you wish to make them bushy. We are pleased to answer your questions.

TURNING HYDRANGEA FLOWERS BLUE (*J. H.*). As far as we know there is no certain receipt for turning the flowers of *Hydrangea Hortensia* the beautiful deep blue seen in some localities. Some advocate the use of iron, either in the form of iron filings added to the soil or by watering from a tank half filled with old iron, and so heavily impregnated that the water is of a deep red colour. Others advise alum, and recommend watering twice a week with a solution formed by adding 2½ oz. of alum to 1 gallon of water, some, again, add 1 oz. of sulphate of ammonia to this mixture. These several receipts are often, but not invariably, effective in changing the colour of the flower from the typical pink to a bluish hue, but rarely to that clear blue seen in naturally-grown specimens. It is alleged that powdered slate will turn the flowers blue. As you are anxious to obtain blue flowers, it would be worth your while to try the different methods on separate plants, when you would see which was the most successful. M. E. Andre, writing a short while back in the *Revue Horticole* on blue *Hydrangeas*, stated that near Angers there was mould sold at a high price as "soil for blue *Hydrangeas*." This soil was analysed and found to contain nitrogen, 0.4103; phosphoric acid, 0.1168; lime, 0.0504; magnesia, 0.2000; potash, 0.0850; soda, 0.0043; oxide of iron, 3.4100; and sulphuric acid, 0.0857.

MANURE FOR NARCISSUS (*W. Price*).—We are chiefly guided by the character of the soil and the subsoil when applying manure to *Narcissi*. For example, in all soils of a light and very sandy nature we prefer manure from cow sheds, giving preference to that about three months old. In the more holding soils we would unhesitatingly use light horse manure in conjunction with ashes from the garden rubbish fires, the latter to be strewn over the surface before planting. Sharp grit is also very useful where the drainage is by no means good or free. The best time for applying the animal (organic) manures referred to is in autumn at planting time, placing the manure not less than 6 inches below the bulbs, and giving a rather liberal supply on all stony or sandy soils. So placed the roots, i.e., fibres, do not come into immediate contact with the manure when emerging from the bulb, which is not desirable. It is better for such as *Spurius vars.*, *obvallaris*, *Ard R'gh*, and the white *Ajax* kinds when manure is used to bury it even more deeply with a view of bettering the lower soil,

keeping it cool, and sustaining growth for the longest period. Mulching the surface for these deep-rooting subjects is not much good, and ample supplies of liquid manure would be much better.

REPOTTING AURICULAS (E. D.).—Do not repot the two Auriculas having offsets at once. Wait until June before doing so, as the offsets, being attached to the parent plant, are increasing their roots and gaining strength, and they do this much more rapidly attached to the plant than if they were divided now. But in June repot all six of the Auriculas, the well-rooted offsets can then be placed singly in 3-inch pots; the weakly ones may go round the sides of a rather larger pot until they are strong enough to be put into pots singly. Early repotting at the end of May or early in June is much to be preferred to August. There is no book dealing solely with the Auricula. Such a book would prove very useful to many amateurs, but it is very doubtful if there would be a demand for it sufficient to make it commercially remunerative. Most of the gardening papers deal with the culture of the Auricula from time to time.

NAMES OF PLANTS.—*M. A. R. C.*—*Daphne floriana*.—*W. S.*—1, *Spiraea canescens*. This was without a number, and there was no No. 2. No. 1 label was loose in the box. 3, *Berberis Darwinii*; 4, *Cistus laurifolius*; 5, *Griselinia littoralis*; 6, *Iris foetidissima variegata*; 7, *Cupressus macrocarpa*; 8, *Leycesteria formosa*.—*G. E. W.*—1, *Zonal Pelargonium Marquise de Moy*; 2, *Zonal Pelargonium Stephanie Pol*; 3, *Zonal Pelargonium Gloire Lyonnaise*; 4, *Cydonia (Pyrus) japonica*.—*J. Winder*.—The *Calla* or *Richardia* flower enclosed is not *R. Pentlandi*, whose spathe is of a rich golden yellow colour with a small blotch of crimson just at the base, but *R. Adlami*, which is very rarely met with. The foliage of the two is much alike; indeed, they may be but forms of one species, but from a garden point of view they are very distinct. These South African *Richardias* have been a good deal crossed with each other both here and in their native country, so that some of the intermediate forms are difficult to determine. At all events you have a very beautiful *Calla*, and though in a Continental catalogue we find that *Adlami* is cheaper in price than *Pentlandi*, it is in this country at least much the scarcer plant of the two. —*W. Laker*.—No. 1 is *Gloriosa grandiflora*, which is by some classed only as a form of *Gloriosa superba*, a plant widely distributed throughout most tropical countries. At the same time the flowers of yours are of a clearer yellow than those usually met with, but we think they will become suffused with red before they drop. *Gloriosa grandiflora* principally occurs along the warm regions of West Africa. No. 2 is *Hemanthus multiflorus*, a native of much the same district. The *Hemanthus*, though fairly well known, is by no means a common plant, for as a rule it does not long thrive under cultivation, while a *Gloriosa* as yellow as yours is decidedly uncommon. —*F. C. M.*—*Spiraea Thunbergii*.—*J. Comber*.—*Erica carnea* (typical); *Azara Gilliesii* (correct). —*J. C. G. R.*—*Berberis Darwinii*.

ERRATUM.—THE MIDLAND DAFFODIL SOCIETY.—In our report of this society it is mentioned that there was only one exhibit in class 9 for six Parvi-coronati, Messrs. Pope and Son being first. This is incorrect, as Mr. Young was second, and Mr. Watts third. The last-mentioned was given an award of merit (as well as the bronze medal) for his beautiful Polyanthus-Primroses, and also a first-class certificate for the same flowers by the National Auricula and Primula Society.

TRADE NOTES.

EUREKA WEED KILLER.

THIS is a labour-saving age, and as with machinery so chemicals play a large part in effecting saving. Recently a test has been made upon garden paths and drives with a preparation called the Eureka Weed Killer, and it has been found most effective in its action. It is supplied either as a dry powder to mix with water or in liquid form, both preparations being the same in price and effect, though the powder seems generally preferred. The solution is easily applied by means of a water-can with rose, and within a short time of application the weeds, moss, and other growths are killed, and the ground is brightened and cleansed without being disturbed. It has been found that the average cost for treating 100 square yards of path is only 1s. 6d. The makers of the Eureka preparations are Tomlinson and Hayward, Limited, Lincoln.

MR. JOHN PROCTOR, DEVANHA HOUSE GARDENS, ABERDEEN.

MR. JOHN PROCTOR, who was for many years gardener to the late Sir William Henderson, Devanha House, Aberdeen, has not now to leave the gardens which he cultivated so successfully for many years, and which were sold on account of the death of his employer. Mr. Proctor has come to terms with the syndicate which purchased the estate for building purposes, and has acquired the tenancy

of about three-fourths of the grounds. Here he will carry on the business of a florist and market gardener. His success in his new venture will be earnestly hoped for by many friends.—*Communicated.*

BOOKS.

L'Ornementation Florale des Jardins.*—Our excellent friend M. Albert Maumené is unquestionably one of the most prolific and one of the best known writers on the art of floral decoration in the garden. His contributions in our contemporary, *Le Jardin*, and his numerous treatises, of which we have already noticed several in these columns, are abundant evidence of the way in which his teaching is accepted by those of his fellow countrymen who are interested in such subjects. This little volume, issued at the price of 2fr., is neatly printed, and illustrated with sixty-five cuts. It is a practical work, clearly and well expressed, and contains many designs of flowerbeds and other decorative garden compositions that remind us somewhat of his "Mosaiculture Pratique." Although many of the illustrations and descriptions apply to work done in the principal public gardens of Paris, they are such as can, with more or less modification, be applied to smaller places, and even to private amateurs' gardens. A few of the headings may help to give the reader an idea of the scope of M. Maumené's new book, viz.: "The Style of Floral Decorations in the Gardens of the Luxembourg;" "The Park Monceau, the Champs Elysées, and the Avenue of the Bois de Boulogne;" "The Champ de Mars and Trocadéro Parks;" and "Vases in the Decoration of Gardens," the whole being a practical review of the summer ornamentation of gardens in 1904. Harmonious association of flowers, dwarf beds, groups of shrubs, details of chromatic arrangements, and every conceivable subject dealing with the floral decoration of gardens during the summertime are here fully discussed, explained, and dealt with by a past master of the craft. The publishers (La Librairie Horticole) have now brought out a very large number of French gardening books on almost every subject, and we mention this more particularly with the object of drawing attention to the detailed catalogue of horticultural literature that the establishment has just issued. It is at once the most varied and comprehensive list of French gardening and botanical books of popular utility that we have seen, and should be in the hands of every horticultural book buyer or student of garden bibliography.

L'Hybridation des Plantes.†—The author of this work is a writer of quite a series of little pamphlets on gardening and kindred subjects, although his name is perhaps not so well known in England as some of his fellow countrymen. His works include treatises on Orange trees, Palms, kitchen gardens, bulbous plants, Begonias, Mushrooms, pruning of fruit trees, Melons, &c. M. de Noter's most recent work is a handy little manual of about 180 pages, in paper wrappers 12mo. in size, with numerous illustrations in black and white. The book is rather better printed than most of the ordinary French gardening pamphlets we have had sent to us of late, and the subject matter is treated in a way likely to render service not only to gardeners, but also to amateurs. The instructions for the artificial fertilising of flowers, in order to produce novelties in form, colour, and suitable for cultivation in the northern part of France, are plainly given. In all there are thirty-four chapters, each one as a rule being devoted to a single family. In the first part we have a chapter on general considerations of the structure of flowers,

* "L'Ornementation Florale des Jardins." By Albert Maumené. Librairie Horticole, 84, bis Rue de Grenelle, Paris.

† "L'Hybridation des Plantes." By Raphaël de Noter. Librairie des Sciences Agricoles (Charles Amat, Editeur), 11, Rue Cassette, Paris.

of artificial fertilisation, of the way in which to prepare the subjects, of the pollen and its action, and the explanation of certain technical terms used by the author in his work. The second part takes us through the whole domain of Queen Flora. Directions as to the cross-fertilisation of Asters, Dahlias, Chrysanthemums, Narcissi, Pelargoniums, Irises, Gladioli, Tulips, Lilies, Yuccas, Tritomas, Fuchsias, Orchids, Primulas, Verbenas, Violas, Cinerarias, and very many other flowers classed in their proper families are all included. Most of the chapters have excellent illustrations explanatory of the text, and the compendious little volume that M. de Noter now puts before the public is certainly an interesting and instructive addition to his already lengthy list of horticultural publications.

SOCIETIES.

SPRING FLOWER SHOW AT NORWICH.

THE Norfolk and Norwich Horticultural Society held its spring show on the 28th ult. at St. Andrews Hall, Norwich. Unfortunately, owing to the early season, the best of the local Narcissi growers could not show, necessitating a falling off in this respect. However, the show was very pretty by reason of the numerous entries of other cut flowers and pot plants. Roses and Carnations were a fine feature, as were also the hardy herbaceous flowers and flowering shrubs. Mr. George Davison, gardener to Major Petre, Westwick House, was a noteworthy winner in these latter and many other classes. The largest class was for thirty-six varieties of Narcissi, three blooms of each, the first prize for which was secured by Mrs. A. Cator of Woodbastwick. Mr. Woodhouse, gardener to Lord Justice Cozens Hardy, Letheringsett Hall, was a prominent winner in this section, his stands comprising quite recent varieties. Mr. W. Chettleburgh, gardener to Colonel Rous of Worstead House, took a great number of prizes for exotic cut flowers and various subjects in pots. Mr. W. Rush, gardener to F. P. Hinde, Esq., Thorpe, Norwich, was the best exhibitor of foliage plants. Orchids in pots were a better show than formerly, Miss Fellowes, Shotesham, and Mr. C. Palmer, gardener to J. B. Coaks, Esq., Thorpe, both managed to beat Mr. Rider Haggard's gardener this year for six.

Fruits were not so strong a section as one would have expected. Mr. G. Baker, gardener to B. E. Fletcher, Esq., of Marlingford, had the best Apples, Mr. George Davison the best Pears, and Mr. C. Palmer, Strawberries.

The trade was well represented by the following: Messrs. Daniels Bros., Limited, Norwich, a grand collection of Narcissi; Messrs. Hobbies, Limited, Dereham, with a tasteful display of Roses and Carnations, including a plant in bloom of Philadelphia Rambler; Messrs. B. R. Cant and Son, Colchester, of Roses in many varieties; Messrs. Cutbush and Son, Highgate, rockery and alpine plants arranged in their novel way; Messrs. Barr and Sons, Narcissi and Tulips; and Messrs. Stark and Son, Ryburgh, of a mixed collection of spring plants.

Mr. W. Smith ably carried out the secretarial duties. The judging was done by the Rev. T. H. Marsh, Mr. F. Atkinson, and Mr. H. G. Ocle for cut flowers; the Rev. A. L. Fellowes, Mr. O. Corder, and Mr. John Green for pot plants; and Messrs. J. E. T. Pollard, A. W. Preston, and W. Allan for fruit and vegetables. The receipts were equal to those of former years.

SHEFFIELD AND THE BRITISH GARDENERS' ASSOCIATION.

A MEETING, organised by the secretary of the Sheffield Floral and Horticultural Society, was held at Sheffield on Saturday evening, the 29th ult., when a deputation from the Yorkshire branch of the association attended from Leeds to explain the objects, Mr. Carver (hon. sec.), Mr. Gant, and Mr. Donoghue being the speakers. The meeting, however, was an example of the apathy of the profession in matters affecting their welfare, for although 200 circulars were sent out, only about twenty-five people attended the meeting. This is perhaps explained by the fact that an impression seems to prevail that it is sought to form a trades union, and many are fearful of what action their employers may take if they knew they attended a meeting to promote it. Had they attended, however, and heard the objects expounded, these ideas would quickly have been dispelled. Undoubtedly the association is in the best interests of employers and gardeners alike, and wherever it has been submitted to employers they have expressed approval of it, and it has already borne good results. Mr. T. J. Nelson of Chesterfield was voted to the chair, and after the deputation had spoken various questions were asked and answered, and a unanimous vote in support of the association was passed. Votes of thanks were also passed to Mr. Lewendon for organising the meeting, to the Leeds delegates, and to the chairman. Several names were handed in for membership. A pleasing feature of the meeting was an exhibit of beautiful Narcissi and Tulips by Messrs. R. H. Bath, Limited, Wisbech, which were much admired. Some twenty varieties of each were staged, including: Tulip Royal Sovereign, Village Boy, Sir Thomas Lipton, Joost van Vondel, &c., also the lovely Narcissus Mme. de Grassif, John Nelson, Una, J. B. M. Camm, Minnie, Edward VII., and other first-class blooms.

ROYAL BOTANICAL AND HORTICULTURAL SOCIETY OF MANCHESTER.

FOR some time it was thought that the above society had concluded its excellent work of the past seventy-five years. The gratifying announcement has been published that the gardens will undergo a complete renovation, redecoration, with new electric plant and fittings, and the splendid exhibitions so well known in the north will be continued. We trust that such generous assistance may be fully appreciated by an increased list of subscribers and by throngs of visitors to the splendid exhibitions. The surroundings already show what can be done by the curators, Mr. P. Weathers, and his excellent staff by the judicious blending of colour in the borders of the large annexe, where hundreds of *Azalea mollis*, *Lilacs*, *Spiræas*, &c., make an exhibition by themselves. The outside department is also pleasing, the flower garden being furnished with large breadths of *Primroses* and *Polyanthus* effectively arranged. This, the first, show was non-competitive, and right well did the exhibitors accept the invitation. As usual, the Orchids were the prevailing feature, and showed to great advantage in the centre of the large exhibition house, for which the following awards were made:

GOLD MEDALS.

Messrs. John Cowan and Co. had the leading collection of Orchids, pleasingly staged. Awards of merit were granted to *Cypripedium aureum virgineale magnificum*, *Odontoglossum concinnum*, and *O. excellens*; first-class certificates to *Cattleya Schröderi Mendelii* and *Odontoglossum perculum*. Amongst the collection were many finely-marked *Odontoglossum crispum*, *Laelio-Cattleya callistoglossa*, *Dendrobium virgineale*, the pretty *Laelia Cowanii*, &c.

Mr. John Robson had an extensive exhibit, in which the Orchids included *Dendrobium thysiflorum*, *Odontoglossum*, *Laelias*, &c., and new Tree Carnations.

SILVER-GILT MEDALS.

Messrs. James Cypher and Sons were worthily accorded this honour for a pleasing collection of Orchids, in which were excellent forms of *Cypripedium Maudie*, *Brassavola digbyana*, *Cattleya lawrenceana*, *C. Skinneri alba*, *C. intermedia alba*, *Odontoglossum crispum*, *Dendrobium thysiflorum* and good types of *Anthurium*s.

Messrs. Dickson, Brown, and Tait staged a large and imposing collection of Tulips and St. Brigid Anemones. Of the former, *Blaze*, *Queen of the Pinks*, *Pink Beauty*, *Grace Darling*, *Hector*, &c., were among the new varieties. The blooms throughout gave evidence of generous culture.

SILVER MEDALS.

Messrs. Charlesworth and Co. had a small but praiseworthy collection. First-class certificates were awarded to *Laelio-Cattleya luminosa* and *L.-C. Lady Miller*. Among others were good *L.-C. hyeana*, *L.-C. Mercia*, *Cattleya Empress Frederick*, &c.

Mr. J. E. Williamson showed *Palms*, *Caladiums*, *Dendrobiums*, *Oncidium*s, *Cypripedium*s, &c.

Mr. W. Duckworth had good *Dendrobium thysiflorum*, *Oncidium*s, *Laelias*, &c.

Lord Ellesmere had shown a tastefully-arranged cone of *Palms*, *Caladiums*, *Oncidium*s, *Odontoglossum*s &c.

AWARDS OF MERIT.

Mr. R. Vernon sent a new *Viola White May*, pure white, with yellow eye; free bloomer.

Mr. J. A. Bruce had herbaceous *Calceolarias*, *Heliotrope*s, *Cinerarias*, *Polyanthus*, and *Geranium*s.

The attendance was fair during the afternoon of the first day.

REDHILL AND REIGATE GARDENERS' ASSOCIATION.

THE closing meeting of the above society was held on Tuesday, the 25th ult., Mr. W. P. Bound in the chair. The following members were awarded the society's first-class certificates, viz., Mr. F. C. Legge, Mr. Chambers, and Mr. Pennis. A large number of members were present on this occasion to hear Mr. Horace Wright lecture on "The Importance of Exhibiting." Mr. Wright dealt with his subject in a most comprehensive manner, and those members who intend competing for prizes at the various horticultural shows could not fail to be well rewarded for their trouble in coming to hear such an instructive discourse. Mr. Wright advised all who intended exhibiting to become well acquainted with the rules laid down in the various schedules, as very often exhibitors were disqualified owing to a want of knowledge of the conditions contained therein. Another important item was staging. This the lecturer dealt with at some length. A discussion followed, in which many members took part. A vote of thanks was accorded Mr. Wright, which was proposed by Mr. W. P. Bound and seconded by Mr. Herbert. This closed the meeting.

CROYDON HORTICULTURAL SOCIETY.

ANOTHER of those interesting evenings when discussions on various topics relating to horticulture are set in motion, and amply criticised, occurred on Tuesday, the 2nd inst., at the society's rooms. The weather, no doubt, prevented a good many from being present; nevertheless, those members who did attend, and amongst them a lady (this being the first lady to join since the society was founded), thoroughly enjoyed the two hours' talk on the subjects introduced. Quite a diversified list of questions were down for discussion, some relating to successful culture, others to failure experienced, and with the consensus of opinion given, the cause of failure and remedial measures to adopt, were expounded.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE monthly meeting was held at 5, St. Andrew Square, Edinburgh, on the evening of the 2nd inst. There was a good attendance, presided over by Mr. J. W. M. Hattie, president. There were a number of good exhibits on view, among them being a splendid lot of *Violas* and *Pansies* from Messrs. Dobbie and Co., of Rothsay, including a number of the newest and finest varieties. The paper of the evening was by Mr. R. Fife, of the firm of Messrs. Dobbie and Co., Rothsay, his subject being, "A Trip to the Seed-growing Districts of Germany." Mr. Fife gave a very graphic and detailed account of the methods of the great seed-growing industry of Germany, Erfurt naturally coming in for a fuller notice than the other centres. The paper was listened to with close attention, and Mr. Fife was heartily thanked for it, and also for the fine exhibit of flowers sent by his firm.

ROYAL HORTICULTURAL SOCIETY.

NEVER was the Horticultural Hall so full of plants and flowers as on Tuesday last. The exhibition then held was the finest of the season. There was a large attendance during the afternoon.

ORCHID COMMITTEE.

Present: Messrs. J. Gurney Fowler, James O'Brien, de B. Crawshaw, W. A. Binley, James Douglas, Jeremiah Colman, Francis Wellesley, W. H. White, F. Sander, H. T. Pitt, H. G. Morris, F. W. Ashton, H. A. Tracy, G. F. Moore, R. G. Thwaites, H. Ballantine, T. W. Bond, J. Wilson Potter, W. H. Young, W. Boxall, William Bolton, Walter Cobb, H. Little, and Harry J. Veitch.

Baron Schröder, The Dell, Egham (gardener, Mr. Ballantine), exhibited a very interesting group of Orchids, some good things being included. *Cattleya Skinneri* was represented by a large plant bearing nine racemes of flowers, and of *Cymbidium lowianum* and *Cypripedium lawrenceanum* good plants were shown. *Laelia cinnabarina*, *Masdevallia veitchiana grandiflora*, and *M. coccinea harryana* made bright bits of colour. There were some good varieties of *Odontoglossum crispum*, e.g., *Lindeni*, *Princess Beatrice*, and others unnamed. *O. elegans*, *O. Pescatorei*, *O. cirrhosum*, *O. horsmannianum*, *O. (Erstedii) Cypripedium lawrenceanum* hyeanum, *C. x seligerum majus*, *C. callosum Sanderi*, *Bulbophyllum Dorei*, and *Bifrenaria Harrisoniae* were other interesting Orchids shown in this group. Silver Flora medal.

F. Monteith Gilvie, Esq., The Shrubbery, Oxford, exhibited a very bright group of Orchids, *Oncidium concolor* making a brilliant display among *Odontoglossum*s, *Cymbidium*s, *Lycastes*, and *Miltonias*. *Cattleya intermedia alba* and *Cypripedium callosum Sanderi* were two good plants included. Silver-gilt Flora medal.

There were some very choice Orchids in the small group shown by Sir Trevor Lawrence, Bart., Burford (Orchid grower, Mr. White), and several are described under new Orchids. *Cattleya Mossie goosensiana*, *L.-C. digbyana Mossie*, *L.-C. G. S. Ball*, *C. intermedia Aquini*, *Epi-Cattleya radiato-bowringiana*, *Dendrobium crumenatum*, with small white flowers (botanical certificate), and *D. jerdonianum* were some of the most interesting. Silver Flora medal.

H. L. Goodson, Esq., 85, West Hill, Putney, showed a small group of Orchids that contained some good *Cymbidium lowianum*, various *Cattleyas* and *Odontoglossum*s, *Oncidium*s, *Phaias*, *Angraecum sesquipedale*, *Dendrobium devonianum*, and others. Silver Flora medal.

Mr. J. Cypher, Cheltenham, showed a very bright group of Orchids, *Laelia purpurata* figuring largely. *Dendrobium thysiflorum* was represented by a splendid plant, and other good things were *L.-C. Hippolyti*, *Cattleya intermedia alba*, *C. lawrenceana*, *C. Mendelii*, *C. Schröderi*, *Phalenopsis rimestadiana*, as well as *Odontoglossum*s and *Cypripedium*s in variety. Silver-gilt Flora medal.

Messrs. Charlesworth and Co., Heaton, Bradford, Yorks, exhibited *Laelio-Cattleya G. S. Ball* (an apricot-coloured hybrid between *L. cinnabarina* and *C. Schröderi*), *L.-C. Lucia*, *L.-C. Mercia*, *L.-C. Myra*, *Cypripedium Edithae* (*bellatulum x chamberlainianum*), *Miltonia blueana grandiflora*, and other choice Orchids, which combined to make an attractive group. Silver Flora medal.

Messrs. Hugh Low and Co., Enfield, had some excellent Orchids in their small group. *Phalenopsis rimestadiana*, *Cattleya intermedia cuneata*, *Trichopilia suavis alba*, *C. intermedia alba*, *Bulbophyllum Lobbi*, and *Chysis bracteata* were some of the good things shown. Silver Banksian medal.

C. J. Lucas, Esq., Warnham Court Gardens, Horsham (gardener, Mr. Duncan), showed a small group of *Odontoglossum*s, which included very good plants of *O. cirrhosum*, *andersonianum*, *polyantha*, *Adriane*, *Hallii*, and others. Silver Banksian medal.

A plant of *Laelio-Cattleya choletiana* (*Cattleya Mossie x Laelia superbiens*), bearing two splendid racemes, was shown by Messrs. Sander and Sons, St. Albans.

De Barri Crawshaw, Esq., sent several of his hybrid *Odontoglossum*s. Messrs. Cowan and Co., Gateacre, Liverpool, sent a good plant of *Cypripedium aureum virgineale*; and W. C. Walker, Esq., Winchmore Hill, showed *Odontoglossum Adriane* var.

Cypripedium wellesleyanum and *C. lawrenceanum* hackbridge were shown by F. Wellesley, Esq., Woking.

H. Whately, Esq., Kenilworth, exhibited some very pretty varieties of *Odontoglossum crispum*, but none of them obtained an award of merit.

M. Ch. Vuysteke, Ghent, also exhibited some very good *Odontoglossum* hybrids.

NEW ORCHIDS.

Odontoglossum crispum *Louis L. Sander*.—A small, perfectly shaped flower with rounded sepals and petals, heavily and evenly blotched with light red upon a white

ground, which is tinged with palest purple in places. The lip is broad at the top, tapering considerably to the base; it also is blotched with light red. From J. Leeman, Esq., Heaton, Mersey. First-class certificate.

Cymbidium rhodochilum.—This distinct and rare *Cymbidium* flowered for the first time in this country at Kew some three years ago. It has pale green sepals, which recurve so much as to be roughly parallel with the stem. The petals are rather deeper green, and marked fairly heavily with black spots and dots. The chief beauty of the flower lies in the lip, for it is red except for a pale yellow channel between the lobes; this yellow is also dotted with black. Shown by J. Bradshaw, Esq., The Grange, Southgate (gardener, Mr. Whitelegge). First-class certificate.

Epi-Laelia Sylvia.—A flower with orange red sepals and petals, and broad, almost flat lip, which is rose red at the edges, fading almost to white at the centre. The flowers are borne on a loose, slightly drooping raceme. From Sir Trevor Lawrence, Bart., Burford (Orchid grower, Mr. W. H. White). Award of merit.

Laelio-Cattleya G. S. Ball magnifica.—This is a very handsome Orchid, the flower being of a uniform rich apricot colour. The lip is frilled, and just at the end is a deeper shade than the rest of the flower. This is a most showy Orchid. From Sir Trevor Lawrence, Bart. Award of merit.

Laelio-Cattleya Mrs. J. Leeman.—*C. aurea* and *L. digbyana* were the parents of this hybrid, which has the characteristic large, heavily fringed lip. The colour of the latter is yellow, marked with brown in the centre, and there is a broad margin of pink. Sepals and petals are primrose colour, tinged with pink. The whole colouring is soft and very pleasing. From Sir Trevor Lawrence, Bart. Award of merit.

Bulbophyllum Reinwardtii.—A curious flower. The sepals are large, acuminate, dull greenish yellow, marked with red dots; the petals are quite small, and lined with red. The lip is crimson, and adds greatly to the effect of the flower. From Sir Trevor Lawrence, Bart. Award of merit.

Odontoglossum crispum Titus.—A large, well-formed flower. The sepals and petals are broad and acuminate, with indented edges. They are heavily blotched with light red upon a pure white ground. The lip is long and broad at the top, marked similarly to the petals and sepals. From J. Leeman, Esq., Heaton, Mersey. Award of merit.

Odontoglossum crispum (yellow) Westbank House variety.—A beautiful flower of deep primrose colouring throughout sepals, petals, and lip. The lip is lightly spotted with light red, and there are similar spots on the top of the white column. From J. Leeman, Esq., Westbank House, Heaton, Mersey. Award of merit.

A botanical certificate was given to *Odontoglossum lindleyanum aureum*, from de B. Crawshaw, Esq., and to *Dendrobium crumenatum*, from Sir Trevor Lawrence, Bart.

NARCISUS COMMITTEE.

Present: Mr. H. B. May (chairman), Miss E. Willmott, the Hon. John Boscawen, the Revs. G. H. Engleheart and S. Eugene Bourne, and Messrs. J. T. Bennett-Poë, W. Poupard, J. D. Pearson, E. A. Bowles, G. Reuthe, James Walker, Robert Sydenham, R. W. Wallace, Walter T. Ware, A. Kingsmill, and Charles H. Curtis.

Messrs. Barr and Sons, King Street, Covent Garden, W.C., made a brilliant display with cottage and May-flowering Darwin Tulips in many richly-coloured varieties. Among the cottage Tulips were *La Merveille*, rich orange scarlet; *T. mauriana*, bright red; *Rainbow*, rose and purple; *Dainty Maid*, marked with purple on a cream ground; very good were *Vittellina*, primrose; *Mrs. Moon* and *retroflexa*, yellow; and the curious *viridiflora præcox*. The Darwins comprised *White Queen*, *Clara Butt*, rich pink; *Pygmalion*, purple; *Mrs. Farncombe Saunders*, red; *Queen of Brilliants*, bright red; *Salmon King*, salmon red; *Zulu*, black purple; and other handsome sorts. Parrot Tulips also added further rich colouring to this effective group. Silver Flora medal.

The group of Tulips from Messrs. R. Wallace and Co., Kinfield Gardens, Colchester, contained many handsome flowers of the various sections. Among the Darwins were some very fine blooms, particularly of *St. Bruno*, marone; *Mrs. Krelage*, silvery rose marked with deeper rose; *Margaret*, bluish; *Clara Butt*, rich pink; *Antony Rozen*, bluish with rose markings; *Europe*, red; *Glow*, rich deep red; *The Fawn*, buff. *Tulip armena*, bright red with black centre; *T. fulgens*, large rich red with yellow centre; *T. billetiana*, yellow suffused with red; *T. vitellina*, deep primrose; *T. gesneriana*, clear red; and *T. ostrowskyana*, bright orange red, were splendid among the species. Silver-gilt Banksian medal.

The Tulips from Messrs. R. H. Bath, Limited, Wisbech, made a very attractive display, the soft shades of the Darwin varieties associating pleasingly with the brighter colours of the Parrot varieties and the species. Of the latter, *T. Greigi*, with its rich orange red flowers, was very telling; *T. elegans*, *T. elegans alba*, *T. fulgens*, bright red, *T. retroflexa*, bright yellow, were other good ones. Among the Darwins *Mme. Krelage*, silvery rose, *Lord Wellington*, purple, *Van Portfeuille*, salmon rose, *Minister Roll*, very dark red, *Maiden's Blush*, *White Queen*, and *La Tulipe Noire* were very handsome. Silver Flora medal.

Messrs. Dobbie and Co., Rothsay, exhibited a small collection of very good Tulips. The flowers were unusually large and made a bright display. *Prince of Austria*, orange-red, *Couleur Cardinal*, *Murillo*, silvery pink, *Thomas Moore*, yellow and buff, *Ala regalis*, white, and some pretty cottage sorts were among them.

The Tulips, Narcissi, and Anemones set up by Messrs. Hogg and Robertson, Rush, County Dublin, made an excellent show. In the centre was a small group of choice

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FRUIT PROSPECTS IN THE WEST.

FROM the time that the earliest of the Plums open till the last of the Apple flowers fall there are many charming pictures to be seen in the Western Counties, a land of orchards, that might, if conditions were different, contribute more than it does at present towards the fruit supply of this country.

A few weeks ago we spent a day in the famous Evesham district, which is a land of market gardens of Pershore and other Plums, and a spot which Nature has favoured with a fertile soil and an ideal situation. The Plums were in full blossom. In every direction the slopes were masses of pearly whiteness, tinged only with the bright green of the bursting growth. There seemed to be flowers everywhere, not only on the trees overhead, but on the ground beneath, because the Evesham market gardener by no means confines himself to Spring Onions, Cabbages, Radishes, and Lettuces, he grows flowers as well, and many acres of land under the fruit trees are planted with Wallflowers, Daffodils, and Narcissi. To look into the florists' shops anywhere and everywhere in the spring of the year one might wonder where the flowers all came from, but it is easy to understand after a walk through the Evesham plantations.

The Plum blossom has experienced rough weather this year, and it is difficult to say yet what the crop will be like. Of bloom there was an abundance, but it was exposed to sharp frosts at night, snowstorms occasionally, and biting north-easterly winds. If one quarter of the bloom comes to maturity there will be a good crop, for the Evesham growers do not sigh for trees with heavy burdens of fruit. Last year the heavy crop followed a famine, and the jam supply of the country had run low, but a second glut of Plums would mean a good deal of wasted fruit and ruinous prices. Years ago the Pershore, or Egg Plum, was the beginning and end of the stone-fruit round Evesham, but growers have learnt to realise that there are other Plums worth growing in the district, and Early Prolific is one that is largely relied on for the early picking. Others of Rivers' introduction are also grown, including Monarch and The Czar, but what is wanted

now is a Plum as early as the Prolific and as big as a Victoria. What money the raiser of such a Plum would make if he could afford to raise a big enough stock before selling.

To speak of Cherries, thoughts naturally revert to Kent, which holds the monopoly in the culture of this luscious fruit; but here and there in the Western Counties are restricted districts where Cherries do well, and are somewhat extensively grown. A few weeks ago we passed through a west country Cherry district when the trees were in full bloom. Prospects then were fair, and if winds and frost have not damaged them there should be a good return. In point of size the Cherry trees in these parts do not compare with the huge specimens to be seen in the Sittingbourne district in Kent, but they possess vigour enough to prove that the soil suits them, and before going in largely for fruit culture it is wise to let Nature indicate the suitability of the district for the purpose in view.

There is no need to ask any questions about the suitability of the Western Counties for Pears, because, attached to the rural farms and other homesteads, are huge specimens of forest tree dimensions. These Pears, mostly of local origin, play a very small part in the supply of fruit for eating, because the edible qualities of the majority of them are hardly worth considering. They were planted with a purpose, namely, to supply fruit for Perry, and this they continue to do. Whether they really pay is another matter. They are established institutions, and hundreds of the trees never cost a cent in the way of cultivation, while the land beneath is used for grazing. The Perry may be used for home consumption, and some of it is sold, so the big Pear trees may be said to return a profit. Now and then one comes across a few trees of good dessert varieties in an old orchard, and the conclusion one comes to is that the originator of that orchard liked a good Pear to eat as well as Perry to drink, and the fruit from the trees now finds its way to market. One observes, however, among the recently established orchards, that the varieties planted are not all Perry Pears, but good dessert sorts which will find a sale in the markets of the future. And why not? There is land enough to grow Pears for Perry-making and Pears to eat, and

it seems a pity that districts which are naturally adapted for this fruit should do so little in supplying the wants of the people with a wholesome and palatable article of food. So far as bloom is concerned there is nothing wanting this season, but it is never safe to prophecy much about the Pear crop until the fruits are developing.

Apple trees now are sheets of pink and white. Attached to almost every farm homestead in the West is an orchard containing Apple trees which were planted long before the Apple trade was anything like it is now. They were planted to produce fruit for the making of the popular West Country beverage, Cider. In some of the orchards one finds a strange mixture of varieties, mostly of local origin and of no market value except for Cider-making, with just a sprinkling of Blenheim's, Wellingtons, and a few other old but good culinary and dessert varieties. Little can be said for the old West Country orchards, many of which are mere relics of something that has been; but they serve a purpose and cost very little. Of late years young orchards have been planted with good trees of the recognised best varieties, and as these come to maturity and the old trees die out the West of England will produce a greater quantity of better-class fruit than it does at present. It does not follow that this need be done at the expense of the Cider industry. There is no reason why this should not develop also, as there appears to be a growing taste for the beverage outside Cider counties proper, but if Cider-making is to flourish palatable liquor must be made. In short, Cider-makers must listen to the voice of science in the actual process of manufacture, and varieties of Apples that will make good Cider must be grown expressly for the purpose.

THE ANNALS OF THE LITTLE RED HOUSE.—II.

I BELIEVE it to be a golden rule if you enter into the possession of a new place in the spring not to cut down any old fruit trees, however miserable they may look, until you have seen what they will produce in the autumn. Many a good fruit tree has been thus sacrificed, which, if it had been spared until fruiting time, would have been standing now. In the same way it is wiser not to interfere

much with the flower-beds and borders until summer is over; you will then have ascertained what to keep and what to discard.

We determined to play the waiting game, and results have shown we did wisely. There was plenty of work waiting to be done—in fact, though our energy was practically inexhaustible, we had moments of despondency when we saw the task we had set ourselves. And, of course, there was the house itself to be taken in hand. The work indoors, however, was left to wet days, which were plentiful in April, and it is not my intention to enter into any details of how we made our house beautiful, as it would be out of place in a paper devoted to gardening.

The first thing we did, of course, was to stock the kitchen garden, for I know that beauty has to give way to use, and though I was burning to get to my flower borders, I first saw the summer crops got in. The kitchen garden occupied a space of about 1 acre, and it was divided into four quarters: one we mentally placed on one side for the Gooseberry and Currant trees, an eighth was already occupied by Strawberries, and I marked out another portion for a seed garden and potting shed, which the master promised to build for me. Here also the Carnation bed was to be made, and this little plot was to be separated from the rest of the kitchen garden by a Lavender hedge. I found a quantity of young Lavender bushes dotted about in the borders; these I moved carefully and put in their new quarters at once. Having finished all these necessary things, it was the beginning of May before I could set to work at the flower borders. Luckily it was a late spring, which made my task more possible. There was, however, no time except just to try and make the herbaceous borders presentable for the coming summer; all re-making and re-trenching which I could see was necessary would have to be left until the following autumn. I had immediately on taking possession of the place begged from gardening friends all they could spare from the surplus stock of hardy plants, and hampers of delightful contributions had arrived. Everything was gratefully accepted, for with 300 yards or 400 yards of wide borders to fill, we were not in a position to be hypercritical. Of course anything like a colour scheme was impossible. Relative heights were considered, and when the borders were planted and raked, I sowed a collection of hardy annuals, with due regard to colour, filling in bare spaces with Pansies; and later again I bought at a neighbouring market some boxes of ready-grown, half-hardy things, and these, with some Geraniums taken at a valuation with garden stock, were put out later. Sweet Peas, too, I sowed as a hedge in a waste piece of land which had been stolen from the orchard, which we allotted at once for our future croquet ground.

In spite of many little failures, the result was excellent, and in July the desert bloomed like a Rose. The Carnation bed, too, was a success. I followed Mr. Martin Smith's directions accurately, double trenching the bed for which I selected a spot north and south. Near the bottom of the trench we placed about 4 inches of rich cow manure, but we were careful to keep it 6 inches at least from the roots of the plants. We mixed well into the soil some sand and a little soot, and then the bed was well trodden down until it would bear the weight of a

man without making an impression. While making the bed a sharp watch was kept for wireworms, with which, however, we are not greatly plagued.

About fifty plants of well-trying sorts of Carnations and Picotees were planted, and for cutting, a stock of Grenadin and Raby Castle and Old Clove were given a place of their own apart from the choicest sorts.

AUGUSTA DE LACY LACY.
(To be continued.)

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

May 23.—Royal Horticultural Society's Meeting (Tulip Show).

May 30.—Royal Horticultural Society's Temple Show (three days); Bath and West of England Show (five days).

June 1.—Rhododendron Exhibition, Botanic Gardens, Regent's Park, throughout the month.

A coloured plate of some of the best varieties of Tree Carnations will be given with THE GARDEN next week.

Kew Guild dinner.—We are requested to remind our readers who are Old Kewites that the annual dinner will take place at the Holborn Restaurant on the 29th inst. at 7.30 p.m., and that the secretary, Mr. Winn, would be glad to hear before the 22nd from all who intend to be present.

Mr. James Whitton.—The many friends of Mr. James Whitton, the able superintendent of the Glasgow Parks and Botanic Gardens, will be pleased to learn that at the last meeting of the Town Council he was granted an increase of £50 to his salary. This brings it up to £500, with an official residence—not too much for an appointment carrying with it so much responsibility, and so well filled by Mr. Whitton, whose great ability is universally recognised by all visitors to the Glasgow parks.

Proposed testimonial to Mr. Richard Dean.—It has been suggested that after such a serious and prolonged illness as our old esteemed friend and secretary, Mr. R. Dean, has passed through, and is still suffering from, it would be a proper time for the National Chrysanthemum Society to initiate and organise a fitting testimonial, and invite the co-operation of all lovers of horticulture, in showing their sympathy practically, as a recognition of long and indefatigable services rendered to the society (ever since the lamented death of Mr. W. Holmes, the first secretary to the society), and to the horticultural world in general. Few men, if any, have contributed more from their pen to up-to-date gardening, thereby distributing knowledge broadcast, acquired by practical, eventful, and long experience. It is thought the form which the testimonial shall take, as being most practicable and useful, should be a purse of money, without any part of it being spent on an illuminated address, or anything of the kind; and it is hoped that all subscribers will send in their donations early, so that arrangements may be made to present the testimonial to Mr. Dean at Carr's Restaurant, 264, Strand, on July 12 (the second day of the Royal Horticultural Society's show at Chelsea).—J. H. WITTY, *Hon. Secretary and Treasurer to the Testimonial Fund.*

Henry Seton Merriman.—It is evident that the popularity of Henry Seton Merriman did not die with him. His great story, "The Sowers," has emerged triumphantly from the test of the sixpenny reprint, in which form it seems destined to establish a record for sales. Messrs. Newnes, by arrangement with Messrs. Smith, Elder and Co., are about to issue the whole of Merriman's novels in their sixpenny

series, and have commissioned the well-known artist, Mr. A. S. Hartrick, to illustrate all the stories. "In Kedar's Tents" is almost ready, and the other novels will follow at monthly intervals.

Edinburgh International Exhibition.—At their meeting on the 2nd inst. the Edinburgh Town Council adopted the recommendation of the Parks Committee that authority be given for closing the Waverley Market Garden to the public on September 13, 14, and 15, so that it might be available for the International Exhibition of the Royal Caledonian Horticultural Society. Opposition was offered on the ground that it was proposed to close a public garden, and that this was illegal, but it was pointed out by the Town Clerk that the bye-laws provided for such being done. The recommendation was adopted by no fewer than thirty-eight to two.

Notes from a Yorkshire garden.

Since writing my last notes we have had a great deal of cold east wind. On the 6th ult. 3 inches or 4 inches of snow fell, followed by 13° of frost the next night, and slighter frosts on several subsequent occasions. As Mr. Jerome recently said, it was all very well for Browning in sunny Italy to sing, "Oh! to be in England when April's there." The lute was falsely tuned for such an April as we have had in 1905. Saxifrages are flowering abundantly this year. Wallaces, with its fine large, white flowers, is out before Apiculata is well over, and Hypnoides, atro-purpurea, Rhei, and Guildford Seedling are covered with bloom. The little golden Cymbalaria sowed itself as usual last autumn, and scores of little seedlings are up. This little member of the Saxifrage family is well worth a place in the rockery or where it will have a chance to get light and air. The Rockfoils come later, and are also giving promise of abundant flowering, and what with Anemone apennina, Primroses, Polyanthus, and Poet's Narcissus, the garden is full of flowers. Around seven pieces of sliced Carrot I found fifteen wireworms one day recently, and but for the tasty vegetable I am afraid my Carnations would have looked sickly before now. How fine a piece of colour do the young Pæony shoots make amongst the green leaves and golden flowers of Daffodils. Last autumn I transplanted a bed of Pæonies and put them towards the front of a shrubbery, with Daffodils about them.—W. J. BEECHWOOD.

Sale of Orchids from the collection of Mr. R. Briggs Bury, Bank House, Accrington.

—At Messrs. Protheroe and Morris's sale on the 2nd inst. of the Lælia, Cattleyas, hybrids, and a few duplicates of Odontoglossums and Cypripediums, the 350 lots realised over £3,300. The principal prices were: Odontoglossum crispum Peetersii, 160 guineas; O. c. Mme. F. Peeters, 200 guineas; O. c. Queen Margherita, 120 guineas; O. c. Mrs. F. Sander, 55 guineas; Cypripedium lawrenceanum hyeanum, 26 guineas; C. Mandiæ, 30 guineas; C. insigne berryanum, 28 guineas; Lælia grandis tenebrosa Walton Grange variety, 70 guineas; Cattleya labiata alba Bank House variety, 75 guineas; C. Mendelii Quorn House variety, 90 guineas; C. Countess of Derby, 150 guineas; C. hardyana alba, 55 guineas; C. Schröderæ alba Bank House variety, 60 guineas; and C. gigas Our Princess, 42 guineas. The amateurs and Orchid specialists from the north were well represented. The principal prices realised on the second day were as follows: Odontoglossum Empress Frederick, 58 guineas; O. crispum Mme. Valcke, 140 guineas; O. c. Duchess of Connaught, 150 guineas; O. c. Peetersii, 150 guineas; Cattleya labiata gilmourea, 75 guineas; C. hardyana alba, 50 guineas; C. Countess of Derby, 140 guineas; C. Mendelii alba Mrs. A. Y. Lees, 70 guineas; C. Trianae Imperator, 45 guineas; Lælia grandis tenebrosa Walton Grange var., 50 guineas; and Cypripedium insigne berryanum, 25 guineas. The sixty-eight lots realised £6,093.

Exhibiting Tufted Pansies.—There again appears to be a tendency to give encouragement to the setting up of Tufted Pansies in sprays, as was the practice a few years ago. Growers and others used to complain of the misleading character of these displays, as there was absolutely nothing to show what the habit of the different varieties really was. Quite recently we have seen two or three good exhibits in which the Tufted Pansies were well represented in sprays. The blooms were large, and on each occasion their colours and markings have been pleasingly diverse. Some of the varieties are well known as suitable for beds and borders owing to their tufted habit, others are passable, but several of the varieties having the largest flowers are anything but tufted in growth. We have taken the trouble and expense of acquiring a collection of the better so-called exhibition Violas to test their merits in the garden, and have been much disappointed. Would-be growers must discriminate when placing their orders, so that those of tufted and free flowering habit be procured.—C. A. H.

Pieris (Andromeda) japonica.—This beautiful Ericaceous shrub has been particularly fine this year in many places, owing in a great measure to the almost total absence of frost during the time the flowers were developing. When in good condition it is an extremely handsome evergreen, that passes through at least two distinct phases of beauty during the year; first, in the spring when the bushes are literally veiled with long pendulous racemes of white wax-like urn-shaped blossoms; and, secondly, when the new growth is pushed out later on, as the young leaves and the bark of the fresh shoots are heavily suffused with bright crimson. A notable feature of this Pieris is that the flower-buds are formed in the autumn, and are very conspicuous by their ruddy tinge throughout the winter. Should the weather at that period be severe, they are from their unprotected state often injured, but, of course, a greater degree of frost is then needed to do the damage than is the case later on, just as the earliest blossoms are expanding. In this susceptibility to frost it is altogether more tender than its North American relative, *Pieris (Andromeda) floribunda*, whose blossoms are rarely checked in this way. Both may be readily flowered under glass in the spring, that is if they are not subjected to hard forcing, and owing to the roots forming a dense mass of fibres they can be lifted and potted with scarcely any check. We are, in this country, accustomed to look upon *Pieris japonica* as only a shrub, but Professor Sargent in his "Forest Flora of Japan" speaks of specimens at least 30 feet in height, with stout well-formed trunks.—T.

Browallia speciosa major.—Notes have from time to time appeared in THE GARDEN concerning the beauty of this plant and its persistent flowering qualities, but, though fairly well known, its merits in this last named respect are, I think, not yet fully recognised. In proof of its freedom of flowering, I may mention that with only half-a-dozen plants in a warm greenhouse we have not been absolutely without blossoms for the last twelve months. This *Browallia* is a member of the Solanum family, and a native of Colombia; indeed, all the species occur in the Andean region of South America. Its culture is not at all difficult, as if stopped freely during its earlier stages it forms naturally a bushy plant of a half-shrubby character. The flowers, suggesting somewhat in shape the new *Nicotiana glauca*, have a tube about an inch long with a spreading mouth divided into five segments. The colour is a rich violet-blue with a white throat, that is, when first expanded as they become paler with age, and singularly enough they also increase in size. The cultural requirements of this *Browallia* are not at all exacting, for if given much the same treatment as a *Heliotrope* it will do well, and needs only ordinary potting compost. One species, *B. elata*, known as the Forget-me-not of

the Andes, was introduced in 1768, but the other has not been grown for very many years.—H. P.

The Croweas.—The illustration on page 235 of the pretty little pink-flowered *Crowea angustifolia* serves not only to call attention to its intrinsic beauty, and thus rescue an almost forgotten plant from oblivion, but it also tends to dispel an erroneous, yet at the same time widespread idea, that certificates and awards of merit are, by the floral committee of the Royal Horticultural Society, given only to new or comparatively new plants, as this *Crowea* lately received the last-named honour. I cannot find the actual date of its introduction, but it was certainly grown here in our forefather's time, when collections of hard-wooded plants were popular. It is a native of Western Australia, whereas a second species, *C. saligna*, was introduced from New South Wales in 1790. This last-named has been more generally met with in cultivation than the other, but usually under the name of *C. latifolia*, the specific title of *saligna* being, however, according to the "Kew Hand List," the correct one. Perhaps, in time, the trend of fashion may change, and we may then see not only *Croweas*, but many other delightful plants once more in general cultivation.—T.

THE COWSLIP BALL.

Low in the meadows the Cowslips hide,
And those that would find them seek far and wide.
Maiden! methinks you have gathered them all
To weave in that yellow Cowslip ball.

Then throw, then throw,
In varied measure,
Now high, now low,
Your golden treasure!

I watched you, I saw you so deftly bind,
And pitied the flowers you left behind,
As slowly through soft, deep meadow grass
Strewn and weaving I saw you pass.

Then throw, then throw,
In varied measure,
Now high, now low,
Your golden treasure!

So sweet, so fair, may your life-path be
As this you are treading away from me;
As pure, little maid, life's blossoms all,
As those that you bind in your Cowslip ball.

Then throw, then throw,
In varied measure,
Now high, now low,
Your golden treasure!

R. THOMPSON.

Pinks.—Judging from the vigorous growth my own Pinks in the border are making, there should be a good head of bloom on the plants during this month. I grow but two of the florists' laced varieties, viz., John Ball and Mrs. Darke, because they have a compact habit of growth and throw up good flower-stems; but it is necessary, owing to the weight of the blossoms, to support the stems with neat stakes. Anyone having a desire to grow a small but interesting collection of laced Pinks might add to the two foregoing varieties Harry Hooper, Modesty, Old Chelsea (a pleasing free-flowering variety which Mr. Douglas is in the habit of bringing up to the May meetings of the Royal Horticultural Society in such good condition), and The Rector. The perfection of this type of Pink is the regularity and density of the lacing, either white or red, round the edge of a well-expanded flower. But to have this desirable character some cultivation is necessary. There should be strong plants, layers laid down as early as possible, then a bed of good sandy loam enriched with well decomposed manure, and deeply stirred. The bed should be raised fully 6 inches above the ground level so as to admit of some settling down, and after remaining two or three days it can be planted, placing the plants far enough apart to allow of free development, and to enable the cultivator to get among them when necessary, pressing the soil firmly

about them, but leaving in the form of a slight mound close around the plants. If any should have put forth a straggling shoot or two from the base, they may be secured in position by means of pegs. The advantage of a raised bed is that when the rain showers of autumn and winter fall the plants do not become water-logged at the roots. The bed should be kept clear of any weeds, and the surface be occasionally stirred when sufficiently dry. A mulch of short manure and leaves placed among the plants at the beginning of December will be found of great advantage during winter and early spring as a protection against hard frost and cold winds. The border varieties well repay liberal treatment. They make the best display when planted in groups of three and four plants, and though the Pink will go on flowering for several years, the plants become overgrown, and so it is well to replant young stock at intervals of three or four years. Top-dressings in early autumn, and again in spring, are very beneficial, and assist the production of fine full blossoms. The following form a very interesting collection: The white varieties are Albino, Her Majesty, Mrs. Lakin, and Mr. Douglas's fine new variety Snowdrift, which in size and finish approaches a white Clove Carnation. Other desirable varieties are Anna Boleyn, pale rose with darker centre, an old but large-flowering variety; Early Rose or Clove Pink, a large, rose-coloured variety of strong growth; Homer, deep rose with dark centre; Lizzie Duval, silvery rose; Paddington, dark rose with maroon centre; and Samuel Barlow, white with claret centre, compact grower and very free. Some of the large-flowered pod-bursters of recent introduction, with their strong, straggling habits of growth are, in my opinion, not superior to the sorts named above. Most of those are pod-bursters, which appears to be a defect in the constitution of the Pink, though Mrs. Lakin and one or two other varieties might be named which are comparatively free from this tendency.—R. D.

Effective grouping.—At Kew this year one of the most effective beds of shrubs has been *Magnolia stellata*, and the beauty of the bed has been added to by a groundwork of *Muscari conicum*, the intense blue of the latter being very effective beneath the glistening white of the *Magnolia*. For planting in a bed on the outskirts of a lawn *Magnolia stellata* is one of the best possible shrubs, being neat in habit and blossoming freely annually. It is an easier plant to move than most of the *Magnolias*, and seems to be less sensitive to root injury than others. It is somewhat difficult to obtain in quantity unless it is imported from Japan. Small plants can be obtained from Japanese nurserymen at a reasonable price, and form in two years from the time of introduction very serviceable specimens, while in six or eight years from the time they are obtained plants 4 feet to 5 feet high and 3 feet to 4 feet through may be had. The worst point about it is the fact that the flowers are sometimes injured by frost, and it is advisable in exposed situations to cover a bed or single specimen with tiffany while in flower. Grown in nursery quarters *M. stellata* is an excellent subject to lift and pot or tub up in autumn, when by forcing in a gentle heat it can be brought into flower in February or March to use for the greenhouse.—W. DALLIMORE.

Proposed railway for Clydesdale fruit trade.—There is at present under consideration by the directors of the Caledonian Railway Company a scheme for the construction of a new light railway, which would have an important and beneficial effect upon the fruit-growing industries in Clydesdale. Surveys have been taken for a light railway which would run from Carlisle to Crossford, the latter being an important fruit-growing centre. Great interest is being taken in the locality in the scheme, which receives general support from fruit-growers, agriculturists, and others in the district.

Berberis Darwinii.—At Kew this is used with considerable effect in various parts of the gardens, and whether as single specimens, groups in shrubberies, or beds, it is equally desirable. Of the many species of *Berberis* it is one of, if not the most, showy, and it is one worthy of cultivation on a large scale, for in addition to being very free-flowering it is also a good evergreen. As a rule it is from 6 feet to 8 feet high, and in the form of a bush, but one plant at Kew growing in a shrubbery has attained a height of 18 feet, with a stem 3 inches to 4 inches in diameter. Being a native of Chili one would expect it to be somewhat tender. This, however, is not the case, as it stands ordinary winters without injury. The leaves are small, barely half an inch long, thick and leathery, and have from three to five spines on the margins. The flowers are in short, dense racemes, borne from axillary buds. In colour they vary to some extent, those of some forms being deep orange, others orange scarlet, while others again are yellow. To obtain a stock of any of these forms cuttings must be rooted, for none come true from seeds, except, of course, the type, which is the orange-coloured one. Grown from seeds it takes about four years to obtain good plants to put out.—W. DALLIMORE.

Rainfall.—The rainfall sent by your correspondent A. J. Keen, Bucklands, Brecon, is a heavy one for March. Here our rainfall in the same month was 2.92, or two-thirds less than Mr. Keen's record. Rain fell on twenty-two days, the maximum on the 10th, when 0.36 fell.—H. WILSON, JUN., *Coltorton Hall, Ashby-de-la-Zouch.*

Cowslips in the wild garden.—Cowslips do not grow luxuriantly in grass; however thickly they spangle the turf of a meadow they are sure to be found at their best near the hedges, bushes, or in some corner. In similar places in the wild garden, the cultivated forms grow splendidly, and even in open grassy spots, though the flower-stalks are shorter and the foliage paler, they are very attractive. Strains of Cowslips vary considerably; we prefer those with downy leaf, inflated calyx, bell-shaped flower, and delicious perfume of the wild variety. Messrs. Barr and Sons have recently sent out a giant scarlet strain, which produces flowers of splendid colour—bright warm orange-brown, perhaps the nearest approach to scarlet yet seen in this flower. Though many well-shaped flowers are to be found among them, the majority are too flat and salver-shaped. Other strains have flowers varying from pale yellow to the richest orange, and what is called by courtesy crimson. It is not difficult to raise a numerous stock. The seed may be sown in boxes in February and placed in a cold frame or gentle heat. It may also be sown on a prepared bed behind a north wall during early May. When the seedlings are large enough they can be transplanted into lines 8 inches apart and 4 inches between the plants. In September they will be ready for planting into their permanent positions. Plant in masses of irregular outline, thickest towards the centre, gradually thinning out, until at the salient points small groups and single plants stand out by themselves. Holes 10 inches wide and

12 inches deep should be dug out, taking away most of the turf and adding some decayed manure. It is generally necessary to mark with a small stick where these are to be dug. The holes may contain from one to four plants, one or two small pieces of turf may be replaced in each to break up their regularity. Annual treatment will consist in pulling off some of the encroaching turf and replacing it with leaf-mould with which a little artificial manure has been mixed.—J. COMBER, *Nymans, Sussex.*

Dundee Horticultural Association.—One of the most successful meetings of the Dundee Horticultural Association for the session of 1904-5 was held in the Technical Institute, Dundee, on the evening of the 2nd inst.



A NEW HEATH (*ERICA HYBRIDA VEITCHII*).

(Shown by Messrs. R. Veitch and Sons of Exeter, at a meeting of the Royal Horticultural Society on March 14 last, and given an award of merit.)

There was a large attendance, presided over by Mr. James Cairns, Balruddery Gardens, and a number of fine specimens of spring-flowering bulbs graced the room and served to illustrate the paper. The address was given by Mr. John Machar, Fotheringham House Gardens, and the subject was the seasonable one of "Spring-flowering Bulbs." Mr. Machar entered fully into his subject, and detailed the cultivation of the favourite spring-flowering bulbs, both in the open and under glass, mentioning also the most suitable varieties for the purpose. An excellent discussion followed, and Mr. Machar was warmly thanked for his valuable address.

TREES AND SHRUBS.

A NEW HEATH (*ERICA HYBRIDA VEITCHII*.)

ON two occasions this spring Mr. Veitch of Exeter, who is distributing this Heath, has exhibited it at the Horticultural Hall of the Royal Horticultural Society. On the first occasion it was not fully in bloom, but on the later date, March 14, it was in first-rate form, and an award of merit was obtained for it. Seen alone when out of flower it might readily be mistaken for a dwarf-growing *E. lusitanica*, but when seen side by side with its parents, *E. lusitanica* and *E. arborea*, it is quite distinct. At Kew it is considered to be an improvement on both parents, being dwarfer and more compact in habit, blossoming more freely, and having, if anything, whiter flowers. The flowering period is a lengthy one, for while many blooms open early in March, it is at its best during the month of April, and in mid-May it is still in flower. The flowers partake of the characters of both parents. The corolla is about the same length, but rather wider than that of *E. lusitanica*, and, as in that plant, the flowers are fragrant. In *E. lusitanica*, the anthers are dark red or reddish brown, while in *E. arborea* they are bright pink, but in the hybrid the colour is intermediate. The stigma of *E. lusitanica*, again, is red, and very little wider than the style, while that of *E. arborea* is white and flattened out, that of the hybrid being pink in colour, and almost as wide as that of *E. arborea*. Another instance in which characters from both parents are seen is the manner in which the flowers are grouped together, *E. arborea* bearing larger clusters than *E. lusitanica*, *E. Veitchii* being between the two. The leaves more closely resemble those of *E. lusitanica*. At Kew it has been grown for several years, the largest plant being now from 2 feet to 2½ feet high and the same through. Each year it blossoms profusely, and from its behaviour it may certainly be classed as one of the best of the hardy Heaths. W. DALLIMORE.

RHODODENDRON PINK PEARL.

I HAVE often heard that this beautiful Rhododendron is not hardy, but I can assure anyone that wants to plant Rhododendrons that such is not the case. Seven years ago we purchased plants from Messrs. John Waterer, Limited, Bagshot Nurseries, the introducers of this splendid hardy hybrid, and planted it in various exposed positions as single specimens. Our plant has never failed to bloom freely. The habit is excellent, and the growth is good. We have never known

a single leaf injured with frost or north or east winds. We have had masses with twenty-eight flowers each. One of our plants now has over seventy flower-buds swelling, and will soon be in perfection. I hope to send you a photograph shortly. Pink Pearl reminds one of the Rhododendron Lord Palmerston in growth, and it flowers about the same time. We have a very good collection of hardy Rhododendrons in these gardens, but nothing to equal Pink Pearl for colour and size of bloom and truss.

F. J. THORNE (gardener to Major Joicsey).
Sunningdale Park.

THE WISTARIA.

I HAVE been reminded lately of the wonderful way in which the Wistaria grows in some parts of England, and even more luxuriantly in the South of France. An old tree I know of in a basque village near Biarritz, called Ustaritz, is growing against one of the more important houses in the village, and covers it completely. Not only that, but branches have been trained so as to cover the rails in front of the house, and to form an arch over the gate. Unless one has been fortunate enough to have seen Wistaria multijuga growing in Japan, it is difficult to picture the beauty of this tree, with its exquisite showers of pale blue flowers, which fill the air with their delicate fragrance. I have also seen a pergola planted alternately with Wistaria and Laburnum, the two plants, mingling their flowers of blue and gold, make a delightful contrast. The Wistaria is a slow grower at first, but when once established makes rapid growth.

A. DE LACY LACY.

BERBERIS VIRESCENS.

THE nomenclature of some of the Himalayan Berberies, of which this is one, is in a decidedly confused state, for both the deciduous and the evergreen species are somewhat variable in character. That at the head of this note is, as far as its summer features are concerned, not equal to the common Barberry and others of this class, but in winter it stands out beyond them all. The reason of this is the warm reddish brown colour of its young bark, which enables it to be

included in that class of shrubs of which the Cardinal Willow and Dogwood are well-known examples. It was for a long time confounded with *Berberis aristata*, and it has been also known as *B. asiatica* and *B. Lycium*; but these matters were cleared up some years ago in the *Botanical Magazine*, where it was figured (t. 7116). A winter comparison of these two Berberies causes one to feel a certain amount of surprise that their distinctness should have been doubted, for *B. aristata*, altogether a stronger growing bush, has the young shoots clothed with greyish bark, whereas in the other it is, as above stated, of a warm reddish brown hue, a feature of especial interest just now to the readers of THE GARDEN who have profited by the Hon. Vicary Gibbs's paper in a recent number, in which the winter beauty of shrubs formed a notable feature. For cutting down annually, as recommended for many things, this Barberry would appear to be well suited, but unfortunately it is very difficult to obtain from nurseries, although time may alter this. It is perfectly hardy, and holds its own in dry soils as well as the common Barberry. T.

CYTISUS (LABURNUM) VOSSI.

In this variety, probably a sport or seedling from *C. præcox* itself, a cross from *C. albus* and *C. purgans*, we have a plant of slender habit, with pendulous racemes of light yellow flowers abundantly produced, as well adapted for pot culture as for the open ground.

F. M.

SPIRÆA ARGUTA.

THIS shrubby Spiræa, perhaps the most valuable of all the hybrids, has for the last few years gained annually many admirers from its beauty as an outdoor shrub, but of late it has proved to be excellent for flowering under glass. A hybrid from the pretty little Japanese Spiræa Thunbergi, this newer form bears a certain resemblance to it, but differs therefrom in several well-marked features, and is altogether a much finer plant. Out of doors Spiræa arguta flowers as a rule during the month of April, at which time the slender arching shoots are thickly studded with corymbs of pure white blossoms, whose tint



THE PREMIER DAFFODIL BLOOMS AT THE BIRMINGHAM SHOW.

(King Alfred on the right, White Queen in the centre, and Beacon on the left.)

contrasts markedly with the dark-coloured bark of the shoots. A most desirable feature of this pretty species is its almost complete immunity from injury through cutting winds and spring frosts which play havoc with some other members of the genus. As a shrub for the greenhouse it forces readily and lasts a long time in bloom. Its value in this respect has been well exemplified during the present season in No. 4 greenhouse at Kew.

H. P.

PRUNUS DAVIDIANA IN SCOTLAND.

CONTRARY to one's expectations in such an unsettled season, *Prunus davidiana*, which I have now had here for several years, has done better than usual this spring, and both the white and rose-coloured forms have flowered with even greater freedom than heretofore. In many seasons the first flowers are caught by severe frosts after opening, and it is later before one has the full enjoyment of the beauty of the remainder, but this season there have been many opened flowers, while the later blooms made the branches quite bright and cheerful-looking. I believe there are two forms with white flowers, that here being the erect or fastigate one, generally considered the better of the two white varieties. I prefer the white to the rose-coloured one, but this season the latter has been so very attractive that it has risen considerably in one's estimation.

Carsethorn, by Dumfries.

S. ARNOTT.

GOLD MEDAL DAFFODILS AT THE BIRMINGHAM SHOW.

ONE of the accompanying illustrations shows the group of Narcissi exhibited at the Birmingham Daffodil Show by Mrs. Berkeley, Spetchley Park, Worcester, which gained first prize (a gold medal) in the class for twelve varieties of seedlings. Among them were some beautiful flowers; for instance, Incognita, white, with flat pale gold cup; Aurora, rounded perianth segments, yellow orange-tipped cup; Rhymester, a fine poeticus variety; Earl Grey, primrose-yellow trumpet; Siren, a large bicolor Ajax; and Robert Berkeley, pale sulphur, with short frilled trumpet. The other illustration shows the three premier blooms in the Magni-coronati, Medio-coronati, and Parvi-coronati sections respectively. King Alfred (on the right) was shown by Messrs. Barr and Sons; White Queen (in the centre) by Messrs. Pope and Sons; and Beacon (on the left) by Mr. P. D. Williams. The illustrations are from photographs by Mr. W. A. Watts.



GOLD MEDAL GROUP OF DAFFODILS AT THE MIDLAND DAFFODIL SOCIETY'S SHOW HELD AT BIRMINGHAM RECENTLY.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

DAFFODILS FROM SEED.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—For the last three years various people have kindly sent me pollen flowers of *Narcissi* for crossing purposes, and I have kept very careful records of the results, which for the three years are almost identical. The average number per cent. of flowers crossed with the pollen from a distance that set seed exceeded that of flowers crossed with home pollen. Similarly the average number of seeds per pod from the foreign pollen was higher than that from the home pollen, and the germination of the former was slightly better than the latter. These results have worked out almost exactly the same each year, i.e., the averages of the three years together coincide almost exactly with those of any one year. I cannot say that I can detect any difference in the vigour of the seedlings, but for this purpose one would have to experiment with exactly the same crosses, half of a batch of any one variety being crossed with a flower grown at home, and the other half with the same variety grown at a distance. One might then obtain some interesting information as to the effect the foreign pollen has as regards the vigour, size, &c., on the resulting seedlings.

I find the following *Narcissi*, among others, seed fairly freely—*Trumpets*: Mrs. Thompson, M. J. Berkeley, Golden Prince, Big Ben, Wear-dale, Duke of Bedford, maximus, Mrs. W. Ware, Horsfieldi, albicans, King Alfred, P. R. Barr, cernuus pulcher, Mme. Plomp, Glory of Noordwijk, Emperor, Florence, Mme. de Graaff, Sol, and Golden Spur.

Of the other classes the following: Firebrand, Minnie Hume, Princess Mary, Sceptre, Blood Orange, Dorothy Yorke, White Wing, Pole Star, Mabel Cowan, Beacon, Mrs. Bowley, Lady M. Boscawen, Cresset, Queen Alexandra, Lucifer, Flambeau, Flora Wilson, and most of the poeticus varieties.

The following I have found good pollen flowers—*Trumpets*: King Alfred, Golden Spur, Glory of Noordwijk, Mme. de Graaff, Florence, Monarch, Santa Maria, Mrs. Burbidge, Weardale Perfection, and coronatus. Of the other classes the following are a few reliable pollen flowers: *Triandrus albus*, *T. calathinus*, Will Scarlett, Jonquil, Flora Wilson, Bernardi varieties, Lady M. Boscawen, Beatrice, and almost all the poeticus varieties, which are the most useful of all.

Of course, there are many others that are good seed and pollen flowers, but those I have enumerated are those which I have found to be some of the most certain of those that I grow.

N. B.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—As Mr. Arthur R. Goodwin asks for the experience of others in growing and seeding the Daffodil, and as you yourself supplement his request, I venture to give a few of the results of my short and comparatively limited experience. In speaking of that useful variety *N. Blackwell*, your correspondent does not mention what I have found to be the case, viz., that it is a reliable seeder. For several seasons I have found this so, and, in crossing it with suitable varieties of *N. poeticus*, one ought to be able to count on getting by and by some handsome, useful, and early red-cups. I have not yet had the good fortune to see *N. poeticus* Acme, for in visiting Mr. Engleheart's grounds this year I was a little too early for it, but I recollect that he spoke of it as one of his best "Poets," and was sorry that I could not see it in bloom. *N. poeticus* Virgil was, however, in perfection at the time of my visit, and is a flower of wonderful beauty; the perianth

segments may be described as ovoid in form, and the colour of the cup is uncommonly striking and brilliant. Besides *Blackwell* (mentioned above), *obvallaris*, *Emperor*, *Princess Mary*, and *Lulworth* are all constant and reliable seeders for the use of the beginner. Of the last-named sort I have never so far fertilised a flower which has not produced a pod of seed. No doubt the above little list could be greatly extended by someone in a larger way than myself, and in this connexion I may say how welcome to the Daffodil grower would be a book from the pen of Mr. Engleheart. He is, indeed, a Triton among the Minnows, for, where some of us are happy in raising our seedlings by the thousand, he raises his by the hundred thousand or more, and the experience that he has gained in his twenty-five years' work would be more than useful in book form to the rapidly-increasing number of the lovers of his flower.

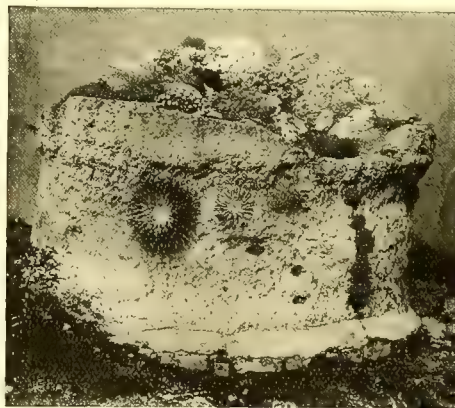
F. HERBERT CHAPMAN.

Guilford Lodge, Rye.

DIPPING WELL FOR ALPINE PLANTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The photograph represents the casing of an ancient (probably Roman) dipping-well, worked out of one solid block of tufa rock (now split in two halves), which I saved from destruction by asking leave to remove it to my



OLD DIPPING WELL COVERED WITH PLANTS.

garden. It had been lying about the village for years, serving as a receptacle for rubbish, and was about to be smashed up for road making. I set it up just above a rock, from the base of which a little artificial spring rises, thus suggesting that the latter really originated inside the old disused well. The well of the stone having been filled in with suitable grit and garnished on the mouth with pieces of tufa, it is now planted with some fifty species and varieties of the choicest alpine plants. The "king" of the show, a fine specimen of *Saxifraga longifolia*, now 9 inches across, is seen facing the stone, it has commenced vigorous growth again without showing signs of inflorescence, so I may hope it will reach 1 foot diameter before that event happens. *S. Elisabethæ* has been beautiful.

Planegg.

E. HEINRICH.

HARDINESS OF OSTROVSKIA MAGNIFICA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—As to the hardiness of the above plant lately mentioned in THE GARDEN, it may interest your readers to know it passed unscathed last winter with a maximum of 54° of frost, i.e., 22° below zero, without the slightest protection. Since it has appeared above ground we had several times 9° to 10° of frost in the night, which, however, left no mark on it whatever.

It likes a light soil, open subsoil (deep calcareous gravel), and open position. *Eremurus robustus* and *E. himalaicus* have passed through the winter in like manner, except that they had a mulch about 1½ inches of decayed manure on them.

Planegg, Bavaria.

E. HEINRICH.

SPARROWS EATING GREEN FLY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your contributor "E. K. R." speaks of the fact of sparrows eating green fly as "a local accomplishment of the sparrows of a particular neighbourhood," so I thought it might interest him if I let you know my own experience. We had a bed of *Roses* in our garden in the west of Ireland. One spring the young shoots were thickly covered with aphides, and I saw a sparrow alight on the bushes, and, taking each shoot in turn in its beak about 2 inches from the top, it drew its beak along to the point, passing the shoot through its mouth. When the sparrow flew off I examined the bushes closely, and found that each shoot the sparrow had operated on was practically cleared of green fly, and was quite uninjured by the process. I admit it is the only useful thing I have ever known a sparrow to do.

Clarendon Road, London, W. H. E. SETON.

MYROBALAN HEDGES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—We have in this neighbourhood a very good hedge of this description which seems to answer the purpose very well, but apart from the shrub being somewhat rarely planted as a hedge I do not think it can compete with a very fine hedge which I know of *Berberis Darwini*, which when in bloom is very beautiful and most effective as a fence. If I were planting a new hedge I should certainly plant the latter for preference.

Holywood, County Down. WALTER SMYTH.

ERIOSTEMON NERIIFOLIUS IN THE OPEN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This little Australian shrub, stated on page 226 to be synonymous with *E. myoporoides*, will flourish in the open in certain parts of Cornwall. In the class for twenty varieties of hard-wooded outdoor flowering shrubs at the Truro show of the Cornwall Daffodil Society, on the 4th ult., the Hon. John Boscawen showed flower-sprays of this plant, and, two days later, I had the opportunity of seeing the plant itself at Tregye. It was a sturdy little shrub about 2 feet in height, and of the same diameter, and with its numbers of white, flesh-tinted flowers was a very pretty and uncommon sight, while it was evidently in the best of health.

S. W. FITZHERBERT.

THE JAPANESE IRIS (I. LÆVIGATA).

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I notice that "E. J." (page 238) recommends a half-shady place for this Iris. In the south-west it succeeds admirably in the full sun. The finest plants I know of, which are growing in a beautiful Cornish garden situated in a sheltered but sunny valley, are remarkable examples over 4 feet in height, with flowers 1 foot across. In another garden, though the plantation is of much more recent date, everything points to a like success being attained. In this case also the plants are growing in the full sun. Just above the bed runs a tiny streamlet, which, during hot weather, is turned into the bed for some days together, so that the plants are kept moist during the summer heat. In a third case, where these Irises are growing in a shady spot by water, the result is far less satisfactory, both as regards growth and floriferousness, but this may be attributable to the soil, although the garden is only two miles distant

from that last mentioned. These Irises delight in a rich, porous root-run, and moisture during their growing period is beneficial to them, but my experience is that they resent the soil about their roots being saturated with water through the winter, and I believe in Japan, where they are flooded during the spring and summer, the water is entirely shut off in the autumn and winter. I even think that a dry position is preferable to one that is sodden during the winter, and I have seen hundreds of these Irises in perfect health and flowering freely under such conditions, though it cannot be said that the plants were so vigorous or the flowers so large as they would have been had they had the advantage of moisture during their growing and flowering period.

S. W. F.

THE WOODLAND GARDEN.

I HAVE lately seen woods of singular tree beauty in several country places, woods with all the natural advantages of soil, air, and country, and well placed near the house—a charm which does not always occur. In these places there was all the dignity and grace of tree-life that could be desired—the trees planted with loving care by past owners; but very often such woodland is neglected until ugly plants take possession, such as Nettles, Dog's Mercury, and, most hateful of all, the common Elder and Privet.

In such woods covert is rightly sought for game, shelter, and other ends, and there is no reason why it should not take a beautiful form and be free of the enemies just named. There are no situations about a country house that offer such opportunity for beauty as these woodlands, where we can mass and enjoy many of the most beautiful of native shrubs, for which there is not always room in the garden. They would be far better in the woodland than in the usual mixed shrubbery; and good, wholesome undergrowth does not interfere with the trees but rather helps them, whereas the growth of weeds and grass, often allowed to rankle over the ground, is hurtful in many ways. It is the nature of some of the finest natural woods to have an undergrowth of evergreen shrubs, as, for instance, in the Californian forests with their beautiful undergrowth of evergreens, the trees rising with clean stems far above them.

The first essential in such clearings would be to get rid of the covert enemies by light grubbing, and plant in bold, free masses things that will fight the weeds. I know nothing that clears the ground below it more thoroughly than the Red Dogwood; its foliage is so close. A cheap shrub, it gives winter effect in marshy or wet places beside streams and ponds, but it will also grow apart from water.

Our native evergreens, *e.g.*, Holly, Box, and Yew—how much more beautiful and effective groups they make than the weedy trees which usually have possession. The common evergreen Barberry from North America is a beautiful covert shrub, with its foliage all through the winter and its fragrant and effective blooms in spring, but it should be held together in natural masses, and close enough to keep the ground clear. The too common way of having a lot of coarse Laurels and clipping them down to one level is stupid and ugly, because there are so many things that give a fine undergrowth without clipping. Take for example the large Partridgeberry (*Gaultheria Shallon*) of North America, as it may be seen at Coolhurst. What an excellent undergrowth it makes, and yet how little grown.

Evergreen Barberries might alternate with our common native Barberry, which is such a brilliant thing in fruit, and wide masses of Aucuba and yellow Azaleas, which are now so easily raised. Such excellent evergreen covert plants as Cunningham's white Rhododendrons are a host in themselves, but there is too much of the dull ponticum. We should encourage the

bright-coloured kinds, such as *Jacksonii*, and never put in a grafted plant. There are splendid kinds in the country, if people will only allow them to laver, as they often will when let alone in a wood. Kinds good in colour can be picked out in flowering time at the lowest rate the nursery trade offers. Only hardy things will be used, and in southern places we might have a little more variety of evergreen undergrowth. Some of the new Bamboos would help very much for effect, such as *Palmata*, which keeps the ground clean, and is very fine in character. In open and poor soils the Heaths would tell well, such as the Cornish Heath and the Common Heather in its stoutest varieties. Sweet Briars, Wild Roses, and Brambles would naturally be welcomed, and it would be well to encourage native bushes like *Viburnum*, *Sloe*, and the beautiful *Spindle Tree* (*Euonymus europæus*), and plants such as *Solomon's Seal* and the Ferns, which often form a pretty undergrowth in woods. Wherever natural covert exists, as it often does in large woods—that is to say, tall evergreen Sedges like *Carex paniculata*, or handsome masses of *Bracken* or *Brambles*—they should be carefully kept, as there is no better covert.

As regards the time for doing the work, the planting had better be done from early autumn until March or April, but much may be done throughout the year in clearing the ground and getting rid of objectionable plants. That is even better done in summer, as we are then more certain to make an end of them than if we do it in winter or autumn. When planting Holly in rabbit places it will be necessary to wire, and if we plant in large, bold masses, as we always ought, the wiring is easier. Happily rabbits do not attack Box, which is a great gain when seeking covert for hungry soils or poor dry bluffs.

It is important in such woods to have the rides airy, clear, and green, and not less than 18 feet wide. In dry places there is little to do but clear them, but in wet soils it may be necessary to form a ditch on each side, the soil from which should be thrown up to make the rides drier; these ditches to be outside the 18 feet line. We lose nothing by having such rides, because the trees enjoy the soil, and the best timber often comes alongside them. Much can be done by seeds sown direct on the ground, even without covering. I raise acres of Broom and Furze by simply throwing the seed out of hand. In freshly cleared spaces these seedling plants would come more freely still, and the seed should be sown not too early in the spring. I mean it is better to sow in the first week of May than in March, as it gives the rabbits a little less time to gnaw the small plants before they get well started. At least two kinds of Broom and two kinds of Furze are excellent to sow in this way, and not a few other things might be raised from seed in case of scarcity of plants; but most plants good for the work are to be had in forest nurseries in quantity, and only young healthy plants should be bought for this purpose.—*Flora and Sylva* for May.

RIVIERA NOTES.

IRIS BUCARICA has this year shown itself a vigorous and desirable garden plant, the strong leafy stems bearing up to fifteen white and yellow-lipped flowers, opening almost simultaneously. If it lasted in flower for a longer period it would be still more valuable. The same remark applies to many of the new hybrids and species of *Oncocyclus Iris*—the duration of their flowers is so very short. After all, nothing is so lasting and handsome as well-grown *Iris susiana*, and nothing yet really surpasses it as a stand-by in the spring garden.

IRIS TINGITANA, now long over, is the best winter flower I know for January cutting. It is so lasting, so clear and handsome in

colouring and petal, that I put it at the head of the choice Irises for this coast. Plenty of manure and moisture in winter are needful to its perfect flowering. This year I have seen a much smaller and darker form in some gardens, but what I know as the type seems far the finest.

THE TREE PÆONY is to this coast what the Rhododendron is to cooler, moister shores, and in magnificence of colour and size it is quite unrivalled by any other flower of my acquaintance. It has been interesting to watch the development of some twenty-five varieties that have now been planted for nearly five years on a cool and semi-shaded terrace, where they have received plenty of liquid manure in winter and early spring when starting into growth. The difficulty in making a selection of these beautiful flowering shrubs is so great, that in the end it is best to choose those of the strongest and most upright habit, for it is only those that make fine bushes laden with magnificent blooms in April. It is very vexing to struggle for years with some refractory variety one has seen at a show, while there are vigorous free-growing varieties to be found if only one knew it. The most admirable variety for habit, foliage, colour, and flower is, in my judgment, *Fragrans maxima*, a clear flesh rose in colour of grand size. *Souvenir de Ducher* is the tallest and most vigorous of all, but its huge blooms are of a rich purple that only looks well with white or yellow. *Zenobia*, a rich purple with a tassel of gold stamens in the centre, is most beautiful and only a trifle less vigorous in habit. These two varieties are useful as a centre of a big group or isolated as specimens; they stand more exposure than the others. There are two or three whites of merit, but none of them are pure in tone except those two small-growing varieties, *Bijou de Chusan* and *Perle des Blanches*, which are exquisite in beauty but only make very small growth, so I would rather plant such varieties as *Blanche de Noisette* and *Blanche de Chateau Frater*, which will both make good bushes well covered with flowers of fine size. *Flora* and *Marie Stuart*, two single whites, are very straggling in habit and very short-lived, but they are much admired while they are in flower. But it is the salmon reds and carnation scarlets that are the most dazzling in beauty of all. *Triomphe de Gand* and *Mme. Stuart Low* are the finest of all, but they need more shelter than the less brilliant sorts. *Leopoldo* and *Cornelia*, rose-reds, with a rich dark patch at the base of their brilliant petals, are smaller and dwarfer in habit, yet so lovely when well grown that they deserve mention. *Reine Elisabeth*, red, is so well known that I need say nothing about it, save that its habit is decidedly bad, and so has disappointed many a beginner who expected a vigorous bush, which this variety takes many years to achieve. Of soft pinks and roses there are many good sorts, but they are all rather apt to stragggle, and need tying up. *Louise Mouchelet*, *Comtesse de Tuder*, *Carolina d'Italie*, and *carnea plena* are beautiful examples of this. The single-flowered varieties are, as far as I have seen, lanky and bad in habit and their flowers very short lived, so while admiring their beauty I should not recommend a beginner to plant them. The difficulty with tree Pæonies is to be able to content yourself with those few varieties that are really admirable in growth and habit. All are so

beautiful when cut that one would desire them all had one room and means to possess them. A rich calcareous soil is what they appreciate most, for I have never seen them quite at their best on a light soil anywhere. There are lovely shades of mauve and deep crimson-blacks to be found, but so far I have not found their growth so vigorous and handsome as those I have mentioned. This spring they have been very beautiful on this coast, showing that they can stand extremes of heat and drought as well as winter frosts.

Nice.

EDWARD H. WOODALL.

LILIUM ROSEUM VAR. MULTIFLORUM.

THIS Lily is a native of the lower ranges of the Indian North-west Himalayas, and is seldom seen in European collections. It is not perfectly hardy, as growth begins early, and the leaves are likely to be damaged if it gets no protection or a sufficient covering of snow. It will do well in the south of England or grown in a frame or pot. It is a stately plant well worth some care, especially the variety which I had the good fortune to raise. This produces as many as fifteen flower-stalks from one bulb, and the main stems rise to

a height of 3 feet, showing as many as forty flowers of a pleasing pale purplish rose. It is of easy cultivation, prefers a rich soil, and after dying down the bulb should be taken up and kept dry as long as no new roots are visible; then replant it, but not too deep.

Baden-Baden.

MAX LEICHTLIN.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We

hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, W.C.

RHODODENDRON DUCHESS OF PORTLAND.

Messrs. Fisher, Son, and Sibray of the Royal Nurseries, Handsworth, Sheffield, send trusses of

their beautiful new Rhododendron named Duchess of Portland, which is a lovely addition to the race of hybrids, the flowers being not only snow white but closely packed in a large head, backed with leaves of a cheerful green shade, the under side of quite a brown colour. Of the many new Rhododendrons raised at Handsworth, this must surely be accounted as valuable as any of the group, the flowers appearing so early in the year, which is, of course, no small advantage. It has the great merit also of perfect hardiness. It has received the award of merit from the Royal Horticultural Society.

POLYANTHUSES AND PRIMROSES.

Of the many gatherings of these spring flowers, we have received this year none have pleased us more than those from Mr. E. Clements, Trusley Manor Gardens, Etwell. We can well understand that, to use our correspondent's words, "they have made a splendid show for some weeks past. The seed was sown in March, 1904."

CINERARIA STELLATA.

A delightful series of flowers of this distinct race of Cinerarias comes from Mr. L. Gwillim, Begonia and seed grower, Cambria Nursery, New Eltham, Kent. The flowers seem to differ from the other strains in having petals with a decided tendency to reflex. Mr. Gwillim has evidently raised a form of stellata which has much grace and variety of colouring.

ROSE FORTUNE'S YELLOW.

Beautiful flowers of this Rose come from Mr. R. Rynd, Brasted Rectory, Kent, and its warm colouring has been described before in THE GARDEN. Those received were the second blooms, and our correspondent well remarks: "It is a Rose so seldom grown in a greenhouse that it may be of interest to some of your Rose lovers. I have had over 1,000 blooms." With the Rose also came a charming blue Lathyrus, *L. sativus* (the blue Chickling Vetch), which is frequently confounded with Lord Anson's Pea (*L. magellanicus* or *nervosus*, as it is sometimes called).

WALLFLOWERS FROM IRELAND.

Miss Charlotte G. O'Brien sends some double Wallflowers with the following note: "I enclose blooms of three old Wallflowers—Golden Chain (yellow), Golden Drop (orange), and Battle (brown). I am surprised not to see them more often mentioned as winter flowerers. This winter Golden Chain began about November. I had two large bushes in flower all the winter, and recently I counted about 200 on one bush. The orange variety comes in more as an early spring flower, also the brown, which is not as good as the others, but is useful when cut to mix with them. Good bushes of Wallflowers are not as common as they should be, because people neglect to take cuttings, and the old plants seldom last more than four or five years. A sharp turn of drought will kill all the old plants of Golden Drop, the most delicate. At this season one should strike a quantity of young growths, and these cuttings make charming beds of plants the following spring. I have had one in bloom from February—perennial Wallflowers and scarlet French Anemone, edged with 'wine-stained' Pansies. It has afforded a quantity of cut flowers, and I shall soon now move the Wallflowers into borders, where they will have room to grow into big bushes before next winter."

CLIANTHUS PUNICEUS AND ITS WHITE VARIETY.

A most interesting contribution to our table comes from Mr. S. W. Fitzherbert, Kingswear, South Devon, this consisting of the scarlet *Clianthus puniceus* and its white sport, which is not quite white, but has a creamy yellow shade. Mr. Fitzherbert writes: "You may remember that I sent you a few flowers of the crimson type just



LILIUM ROSEUM VAR. MULTIFLORUM. (From a photograph sent by Herr Max Leichtlin, Baden-Baden.)

before Christmas, when it began to bloom. Since then it has borne flowers, and is now an unbroken sheet of crimson covering over 100 square feet of wall. The white variety is growing quite as fast, and is a pretty contrast, being on the same wall about 6 feet distant."

MARECHAL NIEL ROSE FLOWERS.

We have received from Mr. D. A. Todds, Daldown Gardens, Broomhouse, Glasgow, very fine flowers of Maréchal Niel Roses, "cut from an old plant covering the entire roof of a house 24 feet by 15 feet." In the note accompanying the flowers it is mentioned that the plant has probably "been here for about twenty years, and is now carrying a large display of flowers."

HORIZONTAL TRAINING OF PEAR TREES.

No other hardy fruit, in my opinion, lends itself so well to this system of training, or succeeds better when this plan is adopted, than the Pear. I have tried the Apple, Peach, Plum, and Cherry, but these have never appeared quite at home or so productive as when trained in a fan-shaped way. The horizontal system of training the Pear has many points in its favour. Once the frame of the tree has been formed (as in the illustration), the further work of extending the growth of the tree consists in securing the terminal shoots of the branches to the wall, either by tying to wires or by nailing in the old-fashioned way. This work is so simple and easily done, and so pleasant, that even the youngest amateur may be trusted to carry it out. It is also, I think, the handsomest way of training a Pear tree. The large veteran well-trained horizontal Pear trees in old gardens when in full bloom in spring, or loaded in autumn with ripe fruit, are very beautiful. Moreover, I think the Pear is quite as fertile—if not more so—when grown in this way than when trained fan-shaped, and especially so in the case of those varieties having robust and free growth.

OWEN THOMAS.

THE ROSE GARDEN.

ROSE FORTUNE'S YELLOW.

UNFORTUNATELY, this distinct and charming Rose is little grown or even known, but this should not be the case, especially when we realise that it has been in cultivation for the past half century. Many may say the flower is not full enough, or that it does not stand well. Let me advise all to grow it, in the face of

such remarks, where home supplies are largely required at this season of the year. I feel sure if it were but once seen growing and in full bloom by those who do not know it it would be soon universally grown. Where choice Roses are sought for in April and May, and there is only a cold greenhouse at command, this is the variety to plant, for with simple glass protection and an abundance of air on all favourable occasions a wealth of highly coloured blooms is the

dressing of horse or cow manure and abundance of water, both clean and diluted, should be given when the plant is thoroughly established, winter or summer. Also freely syringe the plants when growing. For preference obtain pot plants for planting out, as these can be planted any time up to mid-summer if not convenient before. Fortune's Yellow Rose in pots is very valuable for house decoration. A plant here at the time of writing, grown on a single stem 6 feet

high (one season's growth), is carrying twenty beautiful flowers in a 6-inch pot. G. ELLWOOD.
Swanmore Gardens.

DAMASK ROSES.

DAMASK Roses are usually associated in the popular mind with a dark crimson colour whichever class they belong to; but the true Damask Roses (*R. damascena*) were formerly an important group, but have dwindled down now to some seven or eight sorts. Strange to say, most of these are either white or rose-pink in colour. One of the most beautiful is *Mme. Hardy*, a very charming Rose with paper-white flowers. It flowers early, yielding quantities of its charming blossoms, which, however, are somewhat marred by the green centres. This variety makes a good standard, and is also good as a pillar Rose. It is as hardy as the native Hawthorn. *Leda* or *Painted Lady* has ex-

quisite blossoms, blush edged with lake. La

result, providing the following simple details are carried out. The colour is hard to describe, yellowish orange, flushed and flaked with carmine, equally as beautiful when the flower is fully out as when in the bud state. One advantage it also has is that of throwing long flower-stems with just one flower to a stem, wasting no buds in this respect in cutting. The position to choose for planting can even be the worst in the house. It flourishes equally well if planted the north end of the greenhouse, though making it somewhat later, an advantage if the same variety is planted on the south side, as a succession results. A border composed of three parts turfy loam, one part each of burnt garden refuse and decayed manure, with a good sprinkling of bones should be prepared for the plant. If a stage or trellis should cover the selected site, just cut a hole large enough to bring the stem through, training a single stem up to the trellis, where it should be encouraged to form several main rods, which will eventually flower almost their entire length. The simple secret of flowering this plant successfully is to prune hard back annually, immediately the flowering season is over, to these strong main rods, thus promoting vigorous fresh growths for the next season's flowering. An occasional top-

Ville de Bruxelles is of the fresh colour seen in the Hybrid Perpetual Roses *Heinrich Schultheis* or *Mme. Jules Grolez*. The flowers are very flat, fairly large, and full. Of course, such Roses would not be looked at in the height of the Rose season, but it is their earliness that commends them to our notice. The old red Damask is one of the most handsome single Roses we possess, unless it be that Turner's new variety is somewhat of larger size and may possibly surpass it. The striped Damask or *Rosa Mundi* is the best striped Rose we have. Although not the true York and Lancaster, it is far more beautiful and showy. It will at times sport back to the self-coloured type.

ROSE-MME. P. PERRY.

THIS excellent Tea Rose is apt to be overlooked owing to the great annual influx of novelties, but there are so many good points in the variety that it would be a pity if it were lost to our collections. It is only a bud Rose, but what a charming bud, and of such a delightful pale saffron yellow colour. The vigour of the variety is equal to our best Tea Roses in this respect; the strong substantial growths spring up most luxuriantly from old plants, throwing up the fine clusters of flowers quite 3 feet from the base. There is a delicious fruity fragrance about the Rose, more intense than in some of the Tea-scented sorts. Fragrance should also be very marked in a Tea Rose.



PEAR TREE BEURRE D'AMANLIS IN THE GARDEN OF VISCOUNT POWERSCOURT.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

MILDEW ON OPEN-AIR VINES.—This is generally prevalent in a dry, hot season, and the cause is dryness at the roots or lack of nourishment. The same cause has, and will, produce mildew on Grape Vines under glass. Very few people take the trouble to water or otherwise nourish the outside Vines, or even properly disbud or train the shoots. Some years ago, in September, I was passing through the villages of Oldhurst and Woodhurst (I am writing from memory, and the two villages are near each other), and saw the best lot of open-air black Grapes I had seen for years. The villages in question are in Huntingdonshire, in the midst of a corn-growing district, miles away from a railway station. Every house (they were mostly of the cottage type) was covered with Grape Vines. Even those houses abutting on the village street were covered, and the roots of the Vines must have been under the roadway. Whether the villagers fed their Vines in any way I did not ascertain, but there must have been a presiding genius who knew something of gardening in the village who had set the matter going. In this matter example is often better than precept. I have known other instances in country villages where the guidance of a skilled hand has been useful.

Varieties of Grapes for Open Air.—The Grapes I saw at Oldhurst were black, and both bunches and berries were large and well coloured, and the berries had evidently been thinned. The variety was the Esperen, a good Grape for a warm wall, and the walls of a house are much warmer than a garden wall. The next best Grape, and one much grown outside, is the Muscadine. Forsyth speaks of the large bunches he grew of this in the Royal Gardens a century ago. Black Cluster and Miller's Burgundy, or the Dusky Miller, are very free; though the berries are small, they are sweet.

The Killarney Rose.—Few of the favourite Hybrid Tea Roses have attained such popularity as the variety illustrated. It has the longest buds of any of the Roses we possess, and to see these deep buds in the early summer or late autumn, when the weather is favourable to this type of Rose, is a keen pleasure. Although the variety is little more than semi-double, so firm in texture are its petals that I have frequently seen it in the front or second row of an exhibition box. Pink Roses are so abundant that a variety must be really good to survive the competition of novelties, and this Killarney has done, and will continue to do, for some time to come. The colour is really a flesh pink shaded white, and so perfectly distinct from other pink varieties. The great loose petals of the expanded blossoms,

even when they are full blown, have a charming effect on the plant, and they will continue in this state for a long time before they drop. The plant is vigorous, of upright habit, rather inclined to send out side branches, and the tender ruby-red foliage is very pretty. Unfortunately, the foliage becomes much mildewed sometimes, which often quite mars the beauty of the flowers, but if syringed early, before mildew appears, with a solution of sulphide of potassium, the disfigurement of foliage is minimised. In

Runner Beans.—These are not a success in poor ground, and if planted, as they often are, in manured trenches, the trenches should have time to settle, or they should be made firm by treading. Pretty well all plants do best in a firm root-run provided the land has been deeply worked and had time to settle down before planting. I think some of the failures of this crop one hears about arise from the loose nature of the soil. The Scarlet Runner in some of its forms is very popular, so much can be done with

it, not only in growing it for its pods, but to form screens in small gardens and to cover naked fences and walls. The white-seeded variety of Scarlet Runner is a good variety to plant as a succession to the common type, as it bears so well late in the season. I usually start with the scarlet early in May, and plant the white-seeded variety in the middle of June. Tender and True, a climbing form of the dwarf Kidney Bean, is very prolific, and does well under glass. If planted in a low span-roofed house and trained near the glass heavy crops are obtained.

Sub-tropical Bedding.—Beds of Cannas or Indian Shot are beautiful in sheltered places. For several seasons I left them all out during the winter, covering the beds with leaves, finishing off with long litter. The plants were quite safe in the ground, and grew vigorously the following season; but the untidiness of the heaps of litter on the lawn troubled me, and it was given up and the plants stored in the usual way. I mention this to show that the roots only require protection from frost in winter. We have better varieties now than we had thirty years ago, and though sub-tropical bedding in some of its features has been reduced or abandoned in many places, beds of fine-leaved plants are very effective in sheltered gardens. Most of the plants may be raised from seeds in February or March in heat, and as the planting will not take place before June, there is time to get up strong plants. This system may be worked in con-



THE BEAUTIFUL KILLARNEY ROSE.

THE GARDEN for June 25 of last year Mr. Goodwin gives particulars of his method of applying the sulphide, and all who have been troubled with mildew would do well to read Mr. Goodwin's notes. Although it is well to know of a remedy it would be better still to obtain a race of Roses quite mildew-proof. That this is possible I quite believe, and is only a question of time. Killarney makes a very handsome standard, or half standard, and its constant blooming habit is seen to advantage when it is grown as a standard in a conspicuous position. Killarney is an excellent Rose to grow under glass. It has a decided, though not powerful, fragrance. Killarney was introduced in 1898 by Messrs. Alexander Dickson and Sons.—P.

nexion with late Tulips or other late-flowering spring plants. Among the most useful things besides Cannas are Gibson's Castor Oil plant, variegated Maize, Ferdinanda eminens, one or two Solanums, the blue Gums, the Giant Hemp in the background, and the variegated Coltsfoot and the Fishbone Thistle near the front of the border or group. For colour the new golden-leaved Elder plumosa aurea retains its colour well, and there are several variegated Abutilons which are very useful in this kind of decoration. A mass of Gibson's Castor Oil plant planted 3 feet apart, with a groundwork of silver-leaved Geraniums, when placed in some sheltered recess of the lawn is very effective.—H.

FLOWER GARDEN.

INDOOR GARDEN.

Prunus pseudo-cerasus.—Native of Japan and China. This is one of the common forest trees of Japan, and produces large and beautiful cupped flowers of a pleasing shade of rosy blush with whiter centres in great profusion.

Rhipsalis dissimilis var. *setulosa*.—Native of Brazil. This is a curious upright-growing, quadrangular-stemmed Cactus, producing rather freely at the extremities medium-sized flowers of a rather dull shade of greenish yellow with orange-shaded calices.

Listrostachys bidens.—Native of West Tropical Africa. This is an Orchid of little beauty, with spikes of small pinkish flowers.

Colchicum libanoticum.—Native of Syria. This is a very pretty and free-blooming species, with flowers varying from white to pale rose in colour. It bloomed in the Alpine house at Kew from December to January. In a wild state each corm bears from two to four flowers, but in cultivation these increase to eight.

Hippophaë rhamnoides (the Sea Buckthorn).—Native of temperate Europe and Asia. This is an exceedingly ornamental berry-bearing dioecious shrub or small tree. The fruit, which is of a bright orange colour, is produced in great profusion near the extremities of the branchlets, and somewhat resembles that of some of the Chinese Cotoneasters, as *C. angustifolia*. It has also the advantage of not being acceptable to birds.

The second number of the *Paris Revue Horticole* contains a portrait of

Lobelia tenuior or *ramosa* or *coronopifolia*, under all of which distinctive names it has at different times been described and figured by different botanical authorities. It is a very ornamental upright-growing annual, with relatively large flowers of a beautiful shade of deep blue.

The first number of the last-named periodical for May figures

Begonia semperflorens Triomphe des Belvederes. One of the fibrous-rooted section, with deep bronzy foliage and rich orange flowers.

The May number of *Flora and Sylva* contains portraits of

Nerine Bowdeni.—An exceedingly handsome member of the section of the family known as *flexuosa*, and one of the largest flowered and latest blooming of them all. The flowers are of a pleasing shade of light rose colour, with a line of a deeper shade down the centre of each petal, and are produced without any foliage on tall stout flower-stalks, coming into flower from October to November.

Pelargonium Lady Mary Fox.—This is one of the sweet-scented, small-leaved varieties, with small deep red flowers.

The number of the *Revue de l'Horticulture Belge* for May figures four very beautiful hybrid *Cypripediums*, named respectively: 1, *C. auriferum*; 2, *C. albertianum* var.; 3, *C. Mme. Jules Hye*; and 4, *C. elmireanum*. These are admirably represented on a fine double plate, and are each and all of them very beautiful varieties.

W. E. GUMBLETON.

ORCHIDS.

THE LONG-LOST LADY'S SLIPPER.

(*CYPRIPEDIUM FAIRIEANUM*.)

THE Orchid world is about to have a sensational impetus given it by the reintroduction of this long-lost and much-sought-after species, which was named after Mr. Fairie of Liverpool, and described by Dr. Lindley in 1857. Much money and time have been spent in trying to rediscover it, both by Orchid collectors and by botanists, but without success, and now, if report is true, the successful man is an engineer. Suffice it to say, all Orchid lovers are delighted to know that we shall soon have this beautiful and useful species again. Of the previous importations one small piece alone remains in this country, and that in the rich collection of Sir Trevor Lawrence, Bart. Three or four very small pieces are

known on the Continent, and large offers have been made by our connoisseurs to obtain them, although they are so weak and small.

Now that an importation is promised us something very like a boom is most probable, for its qualities as a parent are well known, and with the varieties we now have that can be used with it for hybridising a new and beautiful race will soon be obtained. Much has been learned respecting Orchid culture since the last plants of this species came to this country, and it is to be hoped we shall never see it deteriorate again so as to be practically lost. Nothing, so far, is definitely known of the exact requirements necessary to successful culture. With its reintroduction, if we are given reliable information as to the elevation in which it was found, combined with our general advanced knowledge, success should be assured. It is more than probable that if our growers had started propagating when the first sign of deterioration showed itself we should not now have so urgently required an importation.

To present-day growers it seems incredible that, when there were so many plants in the various nurseries and collections in the sixties and seventies, and quite large pieces and plants could be obtained from 20s. apiece, all should be lost; at any rate it will put present growers on their mettle to see if they cannot do better. Judging by its offsprings, it will require a somewhat cool and humid temperature, not potting it more than is absolutely necessary.

Among the hybrids of which this species has formed one parent are *Juno*, *arthurianum*, *Niobe*, *Baron Schröder*, *vexillarium*, *Ballantinei*, and *Amesiae*. All of them are very beautiful, and in these days when so many of our amateurs take as keen a delight in hybridising as the Orchid nurserymen, the impetus given by the reintroduction of *C. fairieanum* will be of more than ordinary interest.

Gatton Park Gardens. W. P. BOUND.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

GUM CISTUS MILDEWED (*Assistus*).—We can find no trace of any "black mildew" on the shoot sent, but there are traces of the ordinary mildew usually found on Roses. From the appearance of the shoot your plants are evidently dying or dead, and the mildew is an after effect, and not the cause, of the failure of the plants. Fungoid diseases always attack a plant that is

in poor health before one that is growing strongly and that has received no check. Cistuses are bad subjects to transplant, and move best when grown in pots and planted out in late spring. Your plants have probably suffered from being moved last autumn, and are dying before they have made fresh roots. Bordeaux mixture is not so efficacious for mildew as ordinary flowers of sulphur or a solution of sulphide of potassium (poison).

FLOWERS OF LÆLIA PURPURATA (*R. C. H.*).—Both the flowers sent have been fertilised, and that would result in their faded appearance; it would most probably be caused by a bee, beetle, or cockroach. It is by no means an uncommon occurrence. We have seen *Cattleyas* and *Lælias* go off in this way before they were properly opened.

CUCUMBER DISEASE (*H. P., Sydenham*).—We are glad to find it is not the spot fungus your plants are suffering from, but from some inherent disease, the cause of which is not apparent to us. We presume the disease is confined to the two plants which you have very properly rooted out, and hope no further harm will result to the crop.

WALLFLOWERS FAILING (*Delphinium*).—This is a frequent occurrence in damp and heavy soils, and has nothing whatever to do with the source from which the seeds were obtained. The failure may be due to certain local unfavourable conditions, which it is impossible to specify without being familiar with those under which the present specimens were grown. A common cause of failure with Wallflowers is too little care in planting. They naturally form a tap-root, which, if left to take its own course, penetrates straight down, without forming enough fibrous ones to enable the plant to be lifted with a ball of earth when transplanting into its permanent quarters. To encourage the growth of fibrous roots, the tap-root should be pinched off when planting out in the nursery beds. The specimens sent show traces of mildew, which may be caused by too much moisture, as it is stated that the plants have been well watered. As a rule, Wallflowers grow in dry places, such as on old walls, where they assume a perennial habit, and live for some years, but if planted in soil they will damp off during the first winter. So it is probable that the soil in which the present specimens were planted was too heavy or insufficiently drained, or they were not carefully planted.

BOUVARDIAS (*F. H. M.*).—Bouvardias may be successfully grown in a cool greenhouse. Cuttings should be taken off the old plants in April, inserted round the sides of a small pot in very sandy soil, placed in heat under a bell-glass or an ordinary propagating frame, and kept moist in a close atmosphere. When well rooted they should be potted off singly into 3-inch pots. The best compost is a good fibrous loam, to which has been added a good proportion of leaf-soil and sand. They should be kept close and shaded from the sun for a time, with a syringing overhead in the afternoon. As the pots get filled with roots move them into those they are to bloom in, which should be 6 inches or 7 inches in diameter, and use the same kind of soil and treat as before. By the end of July they ought to be moved to a cold pit, after being hardened off and given plenty of room and air to induce them to grow into bushy plants. If any shoots show a tendency to take the lead they should be stopped. The plants may be left in the cold pit till the end of September, when they may be brought into the greenhouse for the winter. The warmer the house the quicker they will come into flower. Although it is best to propagate young plants annually, old ones may be cut back in spring, and when they have grown partially, be shaken out, repotted in new soil, and treated the same way as advised for young plants, except that they will require larger pots.

YEW HEDGE UNSATISFACTORY (M. A. V.).—You can feed the Yew hedge with stable manure worked in on both sides of it, or by soaking it two or three times this summer with liquid manure. To thicken the plants at the base you really want to reduce the top considerably, so as to give them a chance to fill out at the bottom. We have seen the bottom of an old hedge renovated by planting small Yews to fill up the gaps. Whether this would suit your hedge depends upon the condition of the hedge and the amount of room there is between the old stems for the new plants. If you can get the hedge to grow away strongly, you will probably find the bottom fill out in time if you keep the top cut back almost as fast as it grows. You would also find that a few good soakings of clean water during dry weather would materially assist the Yews, as there is none too much moisture in the soil round London. Nitrate of soda pushes Yews along wonderfully, but we do not care for it for permanent plants, as it causes the top to grow at the expense of the root. When mixed with soot, and washed in, its bad after-effects are not so pronounced. The Yew, however, is such a slow-growing plant that time and patience will be necessary to bring the hedge into shape again. It is almost impossible

is at the end of the summer that the mites leave the old buds and attack the buds which are forming, and which should open the next spring. It is then that syringing is most useful. —G. S. S.

TUBEROUS BEGONIAS (E. W. Challen).—These should succeed very well under the conditions you name, and we think that you will find them far more satisfactory than Geraniums. In many nurseries they are started in small pots for bedding out, but if you cannot obtain them locally in this way, they may be planted out directly from the boxes in which they have started. We presume your question refers to plants grown in boxes, as you say they have made good growth without being in pots. One year old tubers are the best for bedding out, and if these are laid thinly into boxes of light soil, and placed under conditions favourable to growth, they quickly push up leaves and also form a dense mass of roots, so that if not too far advanced they may be lifted and planted out without any check.

INJURIOUS BEETLES TO RHODODENDRONS (J. Leach).—There is some mistake as to the cause of the injury to the Rhododendron branches.



CYPRIPEDIUM FAIRIEANUM HYBRIDS.

to over-feed them, so that you need have no fear of overdoing them with manure, in reason.

BLACK CURRANT DISEASE (Learner).—The Black Currant buds which you sent are certainly infested by the Black Currant mite (*Eriophyes ribis*). If your bushes are badly attacked, by far the best thing to do is to root them up and burn them. Give the ground on which they grew a good dressing of gas lime, and do not replant it with Currant bushes for at least a year, and be very sure when buying fresh bushes that you get them from an untainted source. If the attack be only slight, go carefully over the bushes and pick off every doubtful bud, and take care not to drop any about, and either burn them or bury them several inches below the surface. Then later in the year, say, July and August, spray the bushes once a week with the following mixture: Stir $\frac{1}{2}$ lb. of flowers of sulphur into enough water to bring it to the consistency of cream, dissolve $\frac{1}{2}$ lb. of soft soap in about a gallon of boiling water, then stir the two mixtures together thoroughly, and add slowly enough water to make 12 gallons of the compound. It

The little beetle which you forwarded has no English name. It belongs to the genus *Apion*, and is a relative of the weevils. These little beetles feed on the leaves of low-growing plants, particularly on those of various kinds of Clover, and I never heard of them attacking the bark of shrubs before. The Rhododendron branches from the samples you sent are infested by a fungus, which is evidently not one which grows only on the surface, so that it is of little use treating the bushes with any fungicide. I should recommend that the affected branches be cut off and burnt in order to prevent the pest spreading. Probably the bushes are not in a very healthy condition. Very likely the soil from what you say is too dry and poor, which would render the plants more liable than they would be under more favourable circumstance to contract disease. —G. S. S.

FREESIAS AND TUBEROSES (Amy S. Friend).—Both need a light position, a reasonable circulation of air around them, and a suitable temperature, none of which are found in the window of a dwelling-house during the winter months, for at

times in the night it is there very little warmer than out of doors. In order to keep up a continuous display of flowers from October to March, a fair-sized greenhouse, maintained at a temperature of 50° to 60°, is absolutely necessary. The best thing to do is to buy about the middle of September say 100 Roman Hyacinths, and put them in pots 5 inches in diameter. Three or four bulbs, according to their size, should be put in each pot. The soil may consist of two parts loam, one part leaf-mould, and about half a part of sand, the whole being well mixed together. In potting, the bulbs should be buried at such a depth that there is about one-third of an inch of soil over the top of the bulb. When potted, they must all be given a good watering through a fine rose, and half-a-dozen pots may be at once taken into your sunny window, leaving the others out of doors for at least a fortnight, when some more may be taken in, as by this means a succession will be kept up. While out doors they must be watered when necessary, but it is impossible for us to say how often, as so much depends upon the weather and other particulars. Less will, of course, be required when first potted than when the bulbs are well rooted. No manure water will be needed. Under favourable conditions, your earliest Roman Hyacinths should commence to flower by the middle of November, and a display kept up till the New Year is at least a month old. Besides these, a few bulbs of the ordinary varieties of Hyacinths, Paper White Narcissus, Duc Van Thol Tulips, Chionodoxas, and Scilla sibirica may be potted in October, and, grown in your window, will flower earlier than in the open ground, and afford a succession to the Roman Hyacinths.

MANURING ORCHIDS (Orchid).—No manure is good for Orchids; the best results are attained by watering only with clear rain water. Many collections have been ruined by the use of manures, so we strongly advise you to use no manure in any shape or form in your Orchid houses.

SOWING CERTAIN SEEDS (L. C. B.).—Seeds of *Aquilegia pyrenaica*, *Campanula mirabilis*, *Platycodon Mariesii*, *Thalictrum glaucum*, and *Veronica virginica* may, if they are good and fresh, be easily raised in a cold frame. They may either be sown in well-drained pots, filled with a light rich compost and lightly covered with finely sifted soil, or sown on a prepared bed, which must have protection from rain. They may be raised more quickly if placed in a little heat. After the seedlings are up they should be pricked off into boxes, or potted off singly into small pots when they are large enough to handle. The latter method is best, as they are in better condition for planting out, the ball of soil not being so liable to get broken. For a time after potting off, the plants should be kept close and shaded, gradually admitting more light and air as they get larger. *Androsace lanuginosa* may be treated in the same way, but requires more perfect drainage and rough gritty soil. *Eremurus robustus* is best sown in a well-drained prepared bed of sandy loam, over which a light should be placed to ward off heavy rain. The seeds should be well covered with soil, say nearly half an inch. If sown soon after they are ripe they germinate in a few weeks, but if kept till the following spring many of the seeds will be dormant for a year, appearing irregularly. *Eremurus* seedlings are best undisturbed for a year after they germinate, some even leaving them for two years. By this time they will be large enough to plant out in their permanent positions, which operation should be performed when the tops of the plants have died down, say in July or August. —W. I.

DISEASED APPLE TREES (E. Lang).—The young shoots sent unfortunately belong to the upper portion of growth. We would have liked older wood, as this would have given stronger evidence of injury. At the same time, you could have helped us much in giving the age of the trees

attacked. How long is it since you first noticed the injury? If your trees are badly attacked we fear there is little hope of recovery. It will be better to root them out and plant new and clean material. Once the bark is in this state all the remedies applied would not give you healthy wood, and, as previously stated, there is no remedy. But with only a portion of the wood attacked the following remedy would be effective as a winter dressing. A strong caustic soda wash would kill the enemy, but it is too late this season to use it. The mixture is now specially prepared by Bentley, the Chemical Works, Hull, who has an excellent concentrated alkali which may be used at any time when the trees are dormant. Some varieties of Apples are more subject to the attacks of American blight, the pest which has ruined your growths, than others; indeed, so persistent have the attacks occurred that we have had to destroy the trees. If only slightly attacked apply soluble petroleum to the trees in July, as at that date the aphid is most active. With care this may be done without injuring the fruit if used at the rate of a quarter of a pint to three gallons of rain-water. This, well forced into the diseased portions of the trees, will check its development, and with a thorough winter dressing there will be little trouble in the future. At first we thought your trees were only suffering from canker till we detected the ravages of American blight.

DOUGLAS FIR SHOOT (C. E. F.).—The magenta-coloured growths on your Douglas Fir are not shoots at all, but the young cones which appear at this season of the year, and are very ornamental when highly coloured. Sometimes they are much paler. We should advise you to cut them all off your small plants, with the exception of one or two, which you should leave and watch the development of. They ripen in the first year. The three-lobed bracts can be readily distinguished on the small cones, but they get much larger and clearer with age. The male catkins are about 1 inch long, pendent, and are borne on the same plant as the cones and close to them, but they are not produced very freely, except on old plants.

MANURING ROSES (E. B. R., *Savage Club*).—The necessity for manuring Roses to the extent so commonly practised to-day is owing largely to the demand for big flowers. It is not at all a question of stock, for if large flowers are required one must feed the own root plants in the same proportion as those budded on the Manetti and Briar. The Rose needs phosphates to bring the flowers to the greatest perfection, and if such be applied in the form of bone or basic slag when planting, and supplemented by liberal doses of liquid cow manure and soot when buds are seen, the grower will have Roses of the greatest beauty. Practical men find that a pot Rose can best be fed by liquid manure, and if this be so with a pot plant why not with a plant growing outdoors? The Rose needs feeding just when its roots are in a condition to utilise it. The advantage of budded plants over own roots is the fact that they produce stronger roots at first, consequently can utilise stronger food; but when an own root plant is well advanced it is perfectly able to absorb manure to the same extent. For light soils we should prefer own root plants. The abundant small roots flourish better in such a soil. We believe if beds of Tea Roses on their own roots were planted and treated as herbaceous plants by cutting down to the ground every year, we should find glorious masses of Roses where now are found dwindling frost-bitten plants. The Manetti stock is a native of Italy. It is a very insignificant Rose, somewhat tender, and makes quantities of fibrous roots. Tea Roses are useless upon it when grown outdoors, but under glass they grow well for a time. The Briar has more solid and harder roots, and of a more penetrating character. The seedling Briar seems the most natural stock for the Tea Rose, and if a bed is suitably prepared and of a good depth, Tea

Roses will flourish on the Briar for many years. The failure of Tea Roses upon the Briar is not owing to the stock, but the environment or soil, because we find under artificial conditions Tea Roses upon the seedling Briar planted in borders under glass develop into huge bushes 5 feet and 6 feet high, and as much through. As to the assumption that a Tea Rose is more tender than a Hybrid Perpetual, one need only to remember that it originally came from China, consequently by its nature it is less able to bear the rigours of cold climates, whereas the Hybrid Perpetual is made up from groups originating in colder climates. But there is also another reason why Tea Roses succumb to the rigours of our winters, and that is the excitable nature of its growth, which keeps the plants in a growing state until the beginning of winter. If the plants could be given a resting period to enable them to harden their growths they would be fortified to a considerable extent against winter weather. We think the explanation of Standard Tea Roses thriving better with you upon your light soil than the Hybrid Perpetuals is owing to the light soil, which enable the plants to make masses of roots that encourage the quick excitable nature of the Tea Rose, whereas the Hybrid Perpetual with its more solid wood requires steadier growth. We do not doubt if you incorporated some clay with your soil, and gave a good layer of cow manure beneath the roots of the Roses, that you would grow Hybrid Perpetuals equally well as Tea and Hybrid Tea Roses.

PRESERVING HOLLY HEDGE (Mrs. E.).—We are not prepared to say if it is possible to preserve your Hollies, as we do not know the extent of the damage done by the cattle, but if the bark has been eaten off all round the stems, then it is only a question of a few years before the trees die. If only one side or so has been stripped, the trees may ultimately recover, though there is not much you can do to help them. The ragged edges of the wounds should be made smooth and clean with a sharp knife, and the bare places coated with gas-tar, which will keep the wet out of the wood and also prevent the germination of fungus spores. Beyond this nothing can be done to save them, as there is nothing that will take the place of living bark, which is the one thing necessary to preserve the trees.

GROWING TOMATOES IN A COLD GREENHOUSE AND OUT OF DOORS IN IRELAND (Tomato).—No time should be lost in sowing the seeds if they have not already been sown. As soon as the seedlings are large enough to handle—which they will be when they are between 2 inches and 3 inches high—they should be transplanted into shallow boxes (or potted) 4 inches apart. They will then grow freely and sturdily if the boxes or pots are placed on shelves near the glass in a light position. (The plants for out of doors may be prepared in the same way and at the same time.) In about three weeks they will be large enough to transplant into their fruiting pots, which should be about 11 inches wide and the same in depth. The soil that suits the Tomato best is turfy loam cut from pasture land, and stacked up for some months before being used. This should be cut up into lumps the size of pigeons' eggs, and with it should be mixed two quarts of bone-meal and about a peck of well-rotted manure to each small barrowful of loam, adding a sprinkling of lime as these ingredients are turned over and mixed. In the absence of this turfy loam, the best available soil with the above ingredients added must be substituted. The pots, if new, should be soaked in water before being used; and, if old ones, should be washed clean. For drainage broken crocks should be placed over the bottom of the pot to the depth of 1 inch. Over the crocks a layer of the roughest of the soil to be used for planting should be placed, to prevent the smaller soil choking up the drainage. After this the pot should be three parts filled with soil (reserving the one part for a top-dressing later on), and the young plants planted, the soil

round them being pressed firm. One plant in a pot of this size (11-inch) will be sufficient, and it is best to confine the plant to one stem. The pots may then be placed together, 6 inches apart, when many plants may be grown in a small space. The Tomato delights in all the sunshine and light it can possibly have, so the shade you mention should be reduced to the lowest minimum. Presuming the plants are now potted and placed in position, filling all the available space in the house, the after cultural treatment is very simple. Each plant should have a stake 5 feet high placed against it, and the stem tied to it as growth advances. Many side shoots will come from the main stem; all these should be cut away as they appear close to the stem. As to defoliating the plant, this is not advisable or necessary until it has attained its full size and the house appears to be too much crowded with foliage. Many of the bottom leaves may then be shortened (by half) with advantage, admitting more light and air among the fruit. Air must be given freely until a crop of fruit has been set, when less should be given, with a warmer and moister atmosphere maintained in order to swell up the fruit and to hasten its ripening more quickly. Water must be given sparingly until the pots are well filled with roots, when more liberal applications will be needed. Every third day or oftener, when the fruit is swelling, weak manure water from the stable or cow-shed should be given. In the absence of this form of stimulant, weak guano water is the best substitute, and a safe quantity to use is a good handful, well dissolved, to three gallons of water. The earliest and best varieties, we think, are Frogmore Selected and Comet, the former a variety raised at the Royal Gardens, Windsor, and this is as well adapted for growing out of doors as under glass. You might also try Sutton's Out of Doors for outside. The Tomato will succeed very well if planted against a warm wall out of doors. Before planting the ground should receive a moderate dressing of well-decayed rich manure, and be deeply dug. They should be planted firmly, 15 inches apart, and a good time for planting out of doors is about June 10, when danger from frost is past. Planted closely together as recommended, better results are obtained by only growing one stem to a plant. All side shoots must be taken off as they appear, and the foliage may be thinned out, as previously advised, when it becomes at all overcrowded. Water must be freely applied in dry weather, and if a mulching of short manure 2 inches thick can be placed on the surface of the soil, over the roots, the plants would be much benefited.

CUCUMBER AND VINE LEAVES DISEASED (J. H.). The leaves of both the Vines and the Cucumbers are evidently suffering from a virulent attack of some form of fungus. Without knowing particulars and conditions under which they have been grown, we think the attack has been brought about by too low a temperature in the morning, and by the absence of warm air early enough to dry the leaves before the sun had attained considerable power. This refers more particularly to the Vines. To guard against this attack in future you should have a little heat in the pipes of the vinery all night, admitting a little air at night also. We have found this a good remedy against the recurrence of this trouble. For its cure there is no better remedy than to close the house in the evening of a calm day. Heat the hot-water pipes to such a degree that you can scarcely bear your hand upon them, and then paint the pipes with flowers of sulphur made into a liquid with hot water to the consistency of paint. If this application is repeated on two successive evenings the fumes of the sulphur are generally fatal to the fungus. The sulphur must be left on the pipes until it wears off. As regards the Cucumber leaves, we are afraid they are affected by the fatal spot fungus, but would like to have a few more affected leaves sent, and would also like to know in what way it makes its first appearance.

DOUBLE WHITE ARABIS (Mrs. Peacock).—Yours is a very unusual experience. We generally hear such glowing accounts of the profuse flowering of this plant, and from experience have found it to grow and flower most freely. In a short time it will grow into a large mass, and be covered with blossom in the spring. The only reason we can give for your plants failing to flower is that you have given them too rich a soil, and we think you will find that there the mistake lies. This Arabis will grow well in poor soil, and flower all the better. You say you put them in a bed of well-manured soil. It is too late, of course, to expect much result this spring, but even now we should take them up and plant in poorer soil; the growth made will then be less sappy and more likely to flower. If you keep them moist and shaded the transplanting will not harm them.

NAMES OF PLANTS.—*F. W.*—Without flowers it is impossible to be certain of the correct names of many plants, but the following are probably correct: 2, *Esculus Pavia* syn. *Pavia rubra*; 3, *Lysimachia Nummularia*; 4, *Pinellia tuberifera*; 5, *Polygonum cuspidatum*; 6, *Viburnum Lantana* (Wayfaring Tree).—*F. H. M.*—The Wallflower is *Cheiranthus Cheiri* var. fl.-pl., or Harpur Crewe, and the Primula is *P. farinosa*.—*H. L. N.*—*Ribes anreum*.—*Viola*.—The Violet is *Lady Hume Campbell*.—*Frances Gibson*.—The enclosed specimen is *Ribes lacustre*, which was introduced from North America in 1812. It is styled by Loudon the Currant-like Gooseberry, and is described as having flowers like those of the Currant and prickly stems as in the Gooseberry. As its ornamental qualities are not great and the fruit is worthless, we fail to see that it would be of any value for hybridising purposes.

NAMES OF FRUIT.—*H. P.*—The fruit is Hollandbury, which is synonymous with Horsley Pippin. It is an excellent cooking variety, and in season from November to January.

SHORT REPLIES.—*F. W.*—We are unable to state the reason of your Bay Tree dying off in the manner it has done, but should think the condition of the roots is the cause of the trouble. Moisture to excess or extreme drought might be answerable for it. It may, perhaps, have been struck by lightning. —*F. Stewart*.—Evidently a sport. In the ordinary way the fibrous roots should not be cut away from the base of a Palm, neither should the roots be left above the soil. In some cases roots are cut away, that is, when it is thought desirable to keep a plant in a very small pot, but the operation is attended with considerable risk without you have a close, warm, and moist house to stand the plant in until new roots are formed. For ordinary potting of house or room plants, &c., it is advisable to keep the roots intact. —*Decoration*.—"Floral Decorations à la Mode," by Mrs. de Sales (Lougmans, Green, and Co.), is a book on the subject, and Arthur Pearson and Co. also publish a handbook on floral decorations. The latter is the more recent publication. —*R. R.*—Transplant the Hollies at once. —*G. Morris*.—We believe that the failure of your water plants is due to the presence of much lime in the water, and not to the coldness of the spring water. The only thing we now recall is a compound named Anti-Calcare, which you will most likely obtain from a horticultural sundriesman. In all probability, if you enquire of the latter, he may be able to recommend some other preparation suitable for the purpose.

LEGAL POINTS.

IVY ON HOUSE-WALL (Enquirer).—It is hardly necessary to state that the owner of a climbing plant or tree has no right to allow it to extend to his neighbour's wall or fence. The neighbour may cut off that part on his own property without notice to the owner of the tree or plant, even if the encroachment has existed for more than twenty years, as no right to its continuation can be gained by prescription. Furthermore, it is the duty of the owner of the climber to confine it within his own boundaries, as he cannot put the burden of constant cutting on his neighbour. The encroachments on his neighbour's property are in the nature of trespass, for which it may well be that an action will lie. If actual damage is caused to the property an action would, of course, lie to recover the amount of damage. From the other point of view, the owner of a wall, upon which there is a creeper belonging to an adjoining owner, has no legal grievance if the owner of the creeper cuts it away on his own land so as to cause the extension to die, although the creeper may have beautified the adjoining owner's wall for more than twenty years, and he would like it to continue there.

PRIZES FOR GARDENERS.

MAY.

OPEN TO BOTH PROFESSIONAL AND AMATEUR GARDENERS.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA
will be given for the best answers to the questions published below.

I.—Name the best twelve distinct Hybrid Tea or Hybrid Perpetual Roses for garden decoration, taking into consideration freedom and length of flowering, and hardness of constitution. Two distinct Roses of each of the six following colours must be selected: White, flesh, yellow or cream, pink, cherry or light red, and scarlet or dark red. Exclude new Roses of 1904-5.

II.—A hedge of Roses is required to form a protection against the north-east wind in a very exposed position. Name the Rose you would select for this purpose, and state method of planting, pruning for first year, and number of plants required to the 10-foot run; when fully grown the hedge should be about 3 feet 6 inches high. The protective quality of the hedge will be the first consideration; freedom of flower and decorative quality the second.

III.—Give the names of six Roses, rapid climbers, best adapted for climbing into old trees, and state method of planting and pruning for first year.

IV.—A sunken lawn, roughly 1,000 square feet in size, well protected from winds and midday sun, and in a generally favourable position, subsoil clayey loam, is to be converted into a Rose garden. Sketch out design of not more than twelve beds and not less than eight, leaving four grass paths—north, south, east, and west—and number beds 1, 2, 3, &c.

V.—Name dwarf Tea Roses for said beds, one variety to each bed. Consideration must be given to contrast in colour and habit of growth of varieties; freedom of flower essential, and no tender varieties should be used.

VI.—A similar list of Hybrid Teas and Hybrid Perpetuals, with similar conditions as the last query.

VII.—A pergola leads from kitchen garden to above Rose garden, 80 feet long, with arches at every 8 feet. Ten distinct Roses are required (two plants to each arch). Give a list of the varieties you suggest as best for the purpose. The summer-flowering Roses may be used sparingly if thought desirable. General effect of whole when in flower must be considered.

CATALOGUES RECEIVED.

Insecticides and Sundries.—D. M. Watson, 61, South Great George's Street, Dublin.

PUBLICATION RECEIVED.

Annual Report of the Department of Agriculture, West Australia.

BOOKS.

Repertoire de Couleurs.*—This is a remarkable work of its kind, and is practically a colour chart in two volumes of every conceivable shade, with descriptions in French, English, German, Spanish, and Italian. Altogether there are 365 sheets of colours named, each colour being represented in four different tones with but few exceptions, thus bringing up the total of distinct shades to something like 1,400 in all. It is published under the auspices of the French National Chrysanthemum Society, whose educational and useful work during the past ten years places it at the head of all other societies of its kind. The repertoire, of course, is principally intended for Chrysanthemum growers and raisers, but it will be equally serviceable to florists, nurserymen, and, indeed, any trade or profession in which colours play a part. Such a production, to say nothing of previous publications of different kinds, amply justify the *raison d'être* of a special society like the French National Chrysanthemum Society, whose membership now amounts to 732, a figure attained in the ten years of its existence. It is a monumental record, and although it has occupied a long time in its completion, the editor must be complimented on the successful issue of his labours. Help from foreigners has been called into requisition, and his colleagues in the work are, in French, M. Mouillefert; in English, Mr. Harman Payne; in German, Mr. Max Leichtlin of Baden; in Italian, Signor N. Severi, editor of *La Villa ed il Giardino*, Rome; in Spanish, Señor Miguel Cortes of Barcelona. Hence the work is of cosmopolitan utility, and if once adopted for general use by the florists, nurserymen, and raisers of those five countries, there will be a uniformity of colour description never yet known in the annals of horticulture. A work of this extent is, of course, a costly proceeding, and the published price is accordingly somewhat high. It will be useful to editors, journalists, writers for the Press of all kinds, and to many persons in the commercial world whose business deals with articles in colour. The colour sheets are detachable for easy comparison with the article to be named. They are arranged, so to speak, in family groups, thus all the whites are placed first, then follow all the yellows, orange shades come next, then reds, pinks, purples, violets, blues, greens, browns, chestnuts, and, finally, blacks. Every plate is numbered to correspond with the index of names, and each language has its own index of names. The variability is almost beyond conception to anyone whose knowledge of colours is but little wider than that of the rainbow. Indeed, the homely expression "all colours of the rainbow" must now be superseded by all colours of the "Répertoire de Couleurs." In blues and greens there is an immense variety of shades, and the able editor must have been put to considerable exercise of his ingenuity in finding names to describe them. He has, however, done it. We offer our hearty congratulations at the successful outcome of his long and patient labours, and also to the society and printer, M. Oberthür, without whom the suggestion made some time ago would never have been carried into effect.

JAPANESE HORTICULTURE.

Two papers on Japanese horticulture were read, one by one of our allies, the other being the record of an Englishman's observations made during a long visit to Japan, at the recent meeting of the Royal Horticultural Society. The first of these papers was a paper on Japanese horticulture from a Japanese point of view, and had been written by Mr. N. Hayashi, who illustrated his remarks by some fine photographs and pictures.

* "Répertoire de Couleurs." (Librairie Horticole, 54, bis Rue de Grenelle, Paris.)

The lecturer pointed out that, although his nation was one of the oldest now in existence, 2,566 years having passed since the first Emperor's ascent to the throne, the fact of her complete isolation from the Western World had prevented them from profiting by the advance in Western civilisation, and thus they had been compelled to look to China as their teacher, and to Chinese civilisation as their model, until the reformation and subsequent opening of the country to Western influences and civilisation some fifty years ago. Under these circumstances, horticulture also had been developed on Chinese principles, and bound by Chinese conventional rules; but as horticultural progress depended largely on the tranquillity of the country, it was not until Shogun Tokugawa, the great feudal ruler, had brought about peace by the formation of a powerful government in A.D. 1595 that the art made any marked development. For the next 200 years soldiers and commoners alike paid such very great attention to horticulture that, even at the present time, the Tokugawa dynasty is still regarded as the golden age of Japanese horticulture. Then, too, the revolution, or, more strictly speaking, the reformation of forty years ago, was aimed at effecting a complete change in the things which had appeared to the leaders thereof to be impediments in the path of obtaining Western civilisation.

Thus the beautiful gardens attached to the town houses of feudal lords and Shogun's knights in Yedo (now Tokyo), the then capital of the defeated Shogun, were remorselessly destroyed; trees and shrubs had been cut down and converted into fuel for the popular furnace, and ornamental stones had been dug up to pave the streets. Thus horticulture had for awhile been entirely suppressed, and the time, he reminded his hearers, had not yet come to the extent they desired for the nation's undisturbed devotion to such a peaceful art. Immediately after the civil war, which fortunately was soon over, Japan had started a new life, and the whole of that nation, fully realising the vital necessity, had devoted themselves to making their country "the equal in civilisation and in powers of defence and offence to any European nation"; and education, law-making, and many other matters had also occupied their attention. Consequently, though the cultivation of utilitarian fruits and vegetables has been more or less encouraged by the Government, the cultivation of garden plants and flowers had not occupied the people's attention so much of late years as formerly. "Moreover, only three years after the last Chino-Japanese War they had been again called upon to fight against a certain power for their national existence, as well as for securing permanent peace in the Far East; but he (Mr. Hayashi) sincerely hoped that the conclusion of this terrible war would bring the much-desired peace in the East, in which case their horticulture would not be slow in reaping the fruits of such a millenium." He then described the work of the Japanese agricultural, horticultural, and special flower (such as the Chrysanthemum, Rose, and Primula) societies, and of the fruit, dwarf tree, and other societies. He gave a short account of the vegetables of Japan, which, in addition to many of the vegetables to which we are accustomed, included Water Dropwort, the young shoots of the Bamboo, the Egg Plant, Arrow Head, and the bulb of the Liliun tigrinum, and the sub-aqueous roots of the Lotus or Sacred Lily, both of which edible plants were grown in Europe for decorative purposes, just as the Cherry tree was grown in Japan with little regard for the fruit, but with the view of obtaining the largest quantities of blossom. The fruits of Japan were generally eaten raw and never appeared on the table with meals. Few kinds were dried and crystallised for use, and jam making was quite a recent thing learnt from abroad. The fruits mentioned included the Apple, Pear, Quince, Pomegranate, Loquat, Persimmon, Orange, Olive, Apricot,

Plum, Jujube, Vine, Currant, and other soft fruits, and several nuts.

The cultivation of the Chrysanthemum was also described. This flower was first cultivated in Japan about A.D. 300, and reached its zenith in the sixteenth century. The lecturer had himself investigated the origin of the Japanese Chrysanthemum, and had found that similar kinds to the present varieties of flower could be obtained by various processes of hybridisation, and he mentioned what he believed to be the parent varieties, and described the principal varieties now cultivated. The methods of both the Japanese amateur and professional Chrysanthemum cultivator were also included in the paper. Whilst the main desire of the florist was to grow for potting and brilliant-flowering plants, the private grower aimed at either growing giant plants, producing one flower on a single stem, or growing the plants in different forms. They also grafted different varieties on the same stem and grew some dwarfed.

The second paper was by Mr. R. J. Farrer on Japanese horticulture, with special reference to Japanese soil and weather. He pointed out that all Japanese plants grew with more or less bottom-heat, and that their soil is generally of rich warm loam mixed in different degrees with minute volcanic deposits. As to climate they endured intense extremes of heat and cold, at least in Hondo and Hokkaido, both accompanied by almost perpetual rain, October and December being the only two months in which any clear spell of fine weather could be confidently expected. In these circumstances it could not be wondered at that Japanese gardening should differ so much from English. But in fact it was fair to say that the Japanese are not lovers of flower gardens, but of garden architecture in stone and topiary work, and Mr. Farrer had a short extract to this effect from his book, "The Garden of Asia." In the question of wild flowers, Japan contained many species which might be well acclimatised, and will be very valuable additions to our alpine and herbaceous gardens. Mr. Farrer then proceeded to shortly describe notes of *Schizocodon*, *Conandron*, *Lobelia radicans*, the *Cryptopodiums* macranthum, debile and japonicum, *Lithospermum*, the Nikko Azalea, the Japanese Gentians, and various other interesting and beautiful plants of hill or woodland. His lecture concluded with an exhibition of finely-coloured lantern slides from photographs made by him in Japan. Among them were views of Horikiri (Iris), Kameido (Wistaria), rockwork near Ikao, and the Kenchō-ji Garden at Kamakura.

The Royal Horticultural Society are to be congratulated on obtaining such important lectures on the horticultural methods of our Eastern allies, and the two papers read on the 9th inst. will both be published in the Society's Journal, together with those on cognate subjects, by M. Maumené and Mr. James Hudson, which were presented to the last meeting of the society.

THE HORTICULTURAL CLUB.

"WANDERINGS IN CHINA."

SUBSEQUENTLY to the usual monthly dinner of this club at the Hotel Windsor on Tuesday, the 9th inst., when Sir John Llewelyn, Bart., presided and some forty odd members and friends were present, Mr. Wilson read an extremely interesting paper entitled as above, and exhibited a large number of dried specimens of new plants found by him and of photographs depicting the scenery, &c., which he traversed in the course of his research. Mr. Wilson spent some five years in the interior of China, exploring its little-known mountain regions on behalf of Messrs. Veitch, and in that time discovered and introduced living specimens and seeds of no less than 2,000 new and rare plants, while his distinct herbarium specimens reached no less a total than over 5,000. His written paper, fortunately,

permits of a verbatim publication of his lecture in the Journal of the Royal Horticultural Society, in which it will undoubtedly form one of the most interesting of recent contributions to horticultural and botanical literature. In the subsequent discussion, Dr. Henry and Mr. Watson took a prominent part, the former supplementing Mr. Wilson's data by his own experiences in the same country and on the same quest, and the latter paying a well-deserved tribute to the lecturer's perseverance and ability as exemplified by his career, commencing at Kew, and, for the time being, culminating in the great success of his travels as demonstrated.

Amongst other things the truly marvellous character of China as the source of new and valuable plants, and the immensity of the field which still remains to be explored, was illustrated by the fact that, while it is possible to traverse the European alps on foot in a few days, it would need double as many months to cross that vast mountainous area in China and Thibet, which is really an uninterrupted continuation of the mighty Himalayan ranges of India. Every fresh region explored yields a fresh series of new and rare plants, and despite the five years research of Mr. Wilson, and the twenty years of Dr. Henry, the regions they have both explored represent the merest patches on the map, as compared with the whole area. What must we think of a country in which a single hill yielded seventy species of Ferns alone, and a single district 300, while innumerable genera of other plants represented by a few species hitherto, are there found represented by scores of distinct ones, even the *Rhododendron* ranging from huge trees 100 feet high, down to tiny alpine plants under its varied specific forms? Vivid pictures were drawn of mountain flanks entirely clothed with floriferous shrubs and herbaceous plants, such as the newly introduced *Meconopsis integrifolia*, a huge golden-yellow Poppy, which, as Dr. Henry said, seemed to have tried to be a Tulip, so like are its huge blossoms, and of which a fine specimen appropriately faced the president. A very large number of quite new herbaceous plants have been introduced by Mr. Wilson, and this one is one of the first to declare itself, and many others we are told are bound to follow soon, while some of the floriferous trees and shrubs on the list of introductions are predicted to become unique marvels of beauty as soon as they have reached the flowering stage.

In these days of easy travel we are apt to assume that little more remains to explore of the earth's surface, but it is abundantly obvious from Mr. Wilson's and Dr. Henry's remarks that in China alone there is a practically inexhaustible field, while, thanks to the lofty elevation at which most of the treasures are found, they are mostly perfectly hardy, and thus admirably adapted for general culture and enjoyment instead of being confined to the stoves and warm houses of the wealthy. Allusion was made to the fact that a large number of plants, whose botanical name of japonica indicates Japanese origin, are more properly Chinese, and in many cases were introduced thence into Japan. The photographs exhibited showed that the scenery is of the grandest description, while the perils which ever accompany travelling in virgin regions were vividly shown by views of the tremendous rapids which had to be traversed in the comparatively frail boat which formed the chief means of conveyance, while the fact that Mr. Wilson was in China during the Boxer troubles, and yet never had any trouble with the natives, speaks volumes for his extreme tact.

A very hearty vote of thanks was accorded the lecturer, who, to the great satisfaction of his hearers, promised to give a further instalment of his experiences illustrated with lantern slides. Nor was it forgotten to express the club's hearty recognition of the spirit of enterprise of Messrs. Veitch, to whom the initiative of Mr. Wilson's efforts was due, and to whom consequently the horticultural world will be primarily indebted.

FORTHCOMING SHOWS.

- May 23.—Royal Horticultural Society's Meeting (Tulip Show).
 May 24.—Royal Caledonian Horticultural Show at Edinburgh (two days); York Society of Florists' Show.
 May 30.—Royal Horticultural Society's Temple Show (three days); Bath and West of England Show (five days).
 June 1.—Rhododendron Exhibition, Botanic Gardens, Regent's Park, throughout the month.
 June 7.—Royal Botanic Society's Show (three days).
 June 16.—Gardeners' Royal Benevolent Institution Annual Dinner.
 June 20.—Royal Horticultural Society's Meeting; Salterhebble Flower Show.
 June 21.—York Gala (three days).
 June 27.—Oxford Commemoration Show.
 June 28.—Southampton Rose Show (two days); Richmond (Surrey) Horticultural Show.
 June 29.—Colchester Horticultural Show.
 July 4.—Royal Horticultural Society's Meeting; National Sweet Pea Society's Show; Sutton Rose Show.
 July 5.—Tunbridge Wells, Ilanley (two days), and Croydon Flower Shows.
 July 6.—National Rose Society's Show; Sidcup Flower Show.
 July 11.—Wolverhampton Floral Fête (three days).
 July 13.—Woodbridge Horticultural Show.
 July 18.—Royal Horticultural Society's Meeting (Carnation and Picotee Show); National Rose Show at Gloucester.
 July 19.—Newcastle-on-Tyne Flower Show (three days); York Florists' Show.
 July 25.—Tibshelf Horticultural Show.
 July 26.—Southampton Carnation Show and Cardiff Flower Show (two days).
 July 27.—St. Ives (Hunts.) Horticultural Society's Annual Show.
 August 1.—Royal Horticultural Society's Meeting.
 August 2.—Chesterfield Horticultural Show.
 August 7.—Lichfield, Wells, Mansfield, Grantham, and Ilkeston Flower Shows.
 August 9.—Bishop's Stortford, Tavistock, and Ventnor Horticultural Shows.
 August 15.—Royal Horticultural Society's Meeting; Clay Cross Horticultural Show.
 August 16.—Caine and Harpenden Flower Shows.
 August 17.—Dyffryn District and Taunton Deane Horticultural Shows.
 August 19.—Seascale and Lake District and Sheffield Flower Shows.
 August 21.—Warkworth Horticultural Show.
 August 22.—Rothsay and Oxford Flower Shows.
 August 23.—Shrewsbury Floral Fête (two days).
 August 24.—Aberdeen Flower Show (three days).
 August 26.—Jedburgh Horticultural Show.
 August 29.—Royal Horticultural Society's Meeting.
 August 30.—Bath Flower Show (two days).
 August 31.—Ellesmere and Sandy Horticultural Shows.

SOCIETIES.

ROYAL GARDENERS' ORPHAN FUND.
ANNUAL DINNER.

THE seventeenth annual festival dinner of this institution was held on Thursday, the 11th inst., at the Hotel Cecil. The Right Hon. the Earl of Mansfield presided, and was supported by Dr. Maxwell Masters, Messrs. Herbert Hicks, Leonard Sutton, W. A. Binley, Edward Sherwood, H. J. Veitch, W. Sherwood, M. F. Sutton, J. W. Barr, G. H. Barr, G. Monro, and David P. Laird. There was a large gathering of supporters, the tables being well filled. Among those present were Messrs. Peter Kay, James Walker, James Douglas, H. B. May, J. F. McLeod, W. Howe, H. Cutbush, G. Hobday, T. W. Sanders, H. G. Cox, G. J. Ingram, and Brian Wynne (secretary). The festival proved very successful and most enjoyable. The total amount subscribed was £825.

After the usual loyal toasts, the chairman proposed the toast of the evening, "The Royal Gardeners' Orphan Fund." Lord Mansfield first expressed his thanks for the invitation extended to him to preside at the festival dinner of a fund of which he had heard so much. He noticed that out of 105 orphans who were on the funds of this institution, only thirteen of them were from Scotland. The chairman said that Scotland had produced many good gardeners. He went on to plead for the orphans of gardeners. Gardening is a very wide profession, and there are bound to be some orphans left behind. It is for their benefit that this institution exists. Be as liberal as you are able, said the chairman. He thought it was the duty of every gardener to try and do a little for the fund. When they saw the beautiful flowers of to-day, productions of Nature and art, they must feel how much they owed to the gardeners. His lordship referred to the flowers on the table as a galaxy of beauty, and thought the decorations the finest he had ever seen at a public dinner. They did immense credit to those responsible for their production and arrangement. In conclusion, the noble chairman commended the Royal Gardeners' Orphan Fund to the earnest consideration of those present.

Mr. Leonard G. Sutton, who responded, thanked the chairman for so ably proposing the toast of the Orphan Fund. As trustee, Mr. Sutton emphasised the need of supporting the institution. He hoped they would think of the needs of the fund, despite the attractive environment of music and flowers. They must endeavour to carry on successfully the work of the promoters, and to

let others know of the Orphan Fund and of its needs. The flowers served to remind them of the gardeners and also of gardeners' orphans. All who have gardens are indebted to gardeners, and all should try and help the fund.

The toast of "Gardeners and Gardening" was proposed by Mr. Herbert Hicks, who referred to the great pleasure that flowers gave, and thought that all who took delight in them should endeavour to support a fund which existed for the good of gardeners' orphans.

In replying, Mr. W. A. Binley mentioned that he was there as a substitute for two absentees. He thought gardening was now more popular than ever. At Wisley it was no uncommon thing to have 100 visitors a day. During the last twenty-five years gardening had much improved. They were getting rid of carpet bedding, Mr. Binley said he understood that Messrs. James Veitch had introduced from China and Thibet, through their collector, Mr. E. H. Wilson, some 5,000 new plants. Those already exhibited showed what they might expect. He advised them to visit gardens whenever they could, and especially advised a visit to Wisley. He thought a good garden the best memorial of a man, and referred to Wisley as a memorial of G. F. Wilson, and, in years to come, of Sir Thomas Hanbury. He thought that gardeners as a body were extremely dutiful men. Employers should bear in mind that a gardener was like a good wife, you only get one in a lifetime. He concluded by eulogising the services of gardeners.

Mr. Edward Sherwood proposed the toast of "The Visitors." They heartily welcomed them, new comers and old friends alike, and regretted the absence of those who had been with them on previous occasions. He hoped that their sympathy and help would be extended to the orphans of those who had worked for their pleasure.

The Rev. J. C. Eyre Kidson, in responding, said that when they thought of the men who had done so much to beautify gardens, they ought to do their best for the gardeners' orphans. In an excellent speech Mr. Kidson urged visitors to help this fund, and promised to get what help he could from his friends. In the name of the visitors he wished the Royal Gardeners' Orphan Fund every success.

Mr. H. B. May proposed the health of the Chairman, a toast that was given with musical honours. Mr. May said this was the first occasion on which their chairman hailed from the land of cakes. At Scone Palace, Lord Mansfield's Scottish home, a love of gardening was fostered and encouraged. They were deeply indebted to the Earl of Mansfield for so ably advocating the claims of the institution.

The Chairman, in response, expressed his thanks for Mr. May's remarks, and also for the kind reception given to him. Among the many dinners he had attended, that one would in no sense be looked back upon with the least pleasant memories.

The toast of "The Press" was entrusted to the capable hands of Mr. David P. Laird, who, describing himself as a "wee laird" from Scotland, suggested to the Press that they should emphasise the fact that the Gardeners' Orphan Fund is a national, and not a London, institution. He thought the name should be changed to the British Gardeners' Orphan Fund. Mr. Laird eulogised the services to horticulture of Dr. Masters, referring to him as the "grand old man" of horticultural journalism.

Dr. Masters, who replied to this toast, said that when they gave the toast of the Press they were, as a matter of fact, "blowing their own trumpets," for they provided the materials for publication, and it only remained for the editor to present them to his readers in an attractive guise.

The music was excellent, and a most enjoyable evening was spent. The total amount subscribed was £825, about £10 more than last year.

The following were among the subscriptions announced: The Chairman, £50; N. N. Sherwood, £100; Leonard Sutton, £50; J. W. Wheeler Bennett, 50 guineas; Rothschild and Sons, 25 guineas; James Veitch and Sons, 25 guineas; G. Reynolds, £33; D. P. Laird, £16; George Cutbush, £17 5s.; R. H. Pearson, £14 10s.; H. J. Jones, £15; J. F. McLeod, £13 5s.; Hurst and Son, £10 10s.; T. Smith, £10 10s.; Chislehurst Gardeners' Association, £10 5s.; W. D. Graham-Menzies, £10; Whitpainé Nutting, £10; W. Howe, £10; G. Castleton, £10; Barr and Sons, £10; Friends of the Royal Caledonian Horticultural Society and the Scottish Horticultural Association, £37 19s. 6d.; Covent Garden Friends of J. Asbee, £136 8s. 6d.; and sixteen employees of Edmund Rochford made themselves annual subscribers.

The decorations, which were so admired by the chairman, were supplied by J. Veitch and Sons, Wills and Seagar, H. B. May, Barr and Sons, J. Crouch, Joseph Low, A. F. Dutton, Sander and Sons, W. T. Ware, J. Walker, T. Rochford, and the Stove Orchid Company.

EAST ANGLIAN HORTICULTURAL CLUB.

AN essay competition upon "The History and Cultivation of the Apple" was arranged for the May meeting, the president, Mr. J. Powley, giving the prize money. The subject was well taken up. Eight good practical papers were sent in and read before the meeting, after which the judges, Messrs. J. E. Barnes, E. Foulger, and W. Palmer, gave their awards as follows: First, Mr. J. R. Mace, Thorpe St. Andrew; second, Mr. Alfred Cooke, Harford Lodge Gardens, Ipswich Road, Norwich; third, Mr. H. B. Dobbie, Pine Banks Gardens, Thorpe, Norwich. The discussion upon the subject was well maintained.

The subject of the annual excursion of the club was brought up, and, as Major Petre had consented to the club having every facility for visiting Westwick House Gardens, where Mr. George Davison raises and grows such choice hardy plants, &c., it was unanimously decided to go there on July 20.

Messrs. Daniels Brothers, Limited, Norwich, placed upon the table excellent flowers of Narcissus Philip Hurt, a new variety of the Bernadi section, and one of the latest. It has a deep orange red cup. Mr. W. Shoemith, gardener to F. W. Harmer, Esq., Cringleford, staged choice plants of Schizanthus, Primula japonica, and some well-coloured Strawberries. Mr. C. H. Fox's plant of the pretty early Phlox canadense were much thought of. The other exhibits were excellent. Messrs. G. Davison (Westwick), C. Marr (Hobbies, Limited, Dereham), and E. Goldspink judged the exhibits.

ROYAL HORTICULTURAL SOCIETY.

FLORAL COMMITTEE (continued).

Caladiums were shown by Messrs. Laing and Son, Forest Hill.

Heaths and the new Polyantha Rose Mrs. Wm. H. Cutbush were shown by Messrs. Cutbush, Highgate.

Some half-dozen heads of Rhododendron Falconeri came from Mr. E. Heath, Holmwood, Surrey, the plants having been grown without protection in the open.

FRUIT AND VEGETABLE COMMITTEE.

The collection of fifty sorts of dessert and cooking Apples from Messrs. James Veitch and Sons, Limited, Chelsea, was awarded a silver Banksian medal. Winter Peach was one of the most notable sorts. It is a clear pale yellow colour, keeps wonderfully well, and is excellent eating. Cox's Orange, too, was finely shown. Smart's Prince Arthur (culinary), Wadhurst Pippin, Baldwin (culinary), Lamb Abbey Pearmain, Barnack Beauty, Wellington (cooking, very fine), Scarlet Nonpareil, Sandringham, Middle Green (new), and Gooseberry (cooking) were among the best. Pears Bellissime d'Hiver, Catillac, and Directeur Alphonse were also shown by Messrs. Veitch.

Messrs. George Bunyard and Co., Maidstone, sent a small collection of Apples, including Betty Gesson, Northern Greening, Hornmead's Pearmain, Wellington, Annie Elizabeth, and others.

Mr. J. Grandfield, The Gardens, Hayes Place, Hayes, exhibited some excellent fruits of Melon Hero of Lockinge. Cultural commendation.

Messrs. Cannell and Sons, Swanley, Kent, exhibited Peas King Edward VII., sown on March 4 in a cool house, and ready for picking May 4. It is an excellent variety, and turns in very early. They also showed their Cannell's Defiance Cabbage and Model Broccoli. Cultural commendation.

A cultural commendation was given to S. Heilbut, Esq., Holyport (gardener, Mr. Stevens), for some very fine Lettuce of the variety Sutton's Golden Ball.

NEW FRUITS AND VEGETABLES.

Rhubarb's Hobday's Giant.—An unusually large Rhubarb of excellent flavour. It is vigorous, and does equally well for forcing as for outdoor culture. It is evidently a good Rhubarb and of quite extraordinary size. The stems were quite 4 feet long. Shown by Mr. Hobday, Romford. Award of merit.

Cucumber Aristocrat.—Shown by Mr. S. Mortimer, Farnham, Surrey. This is a long, rather slender, and smooth Cucumber, of very good shape. The fruit and vegetable committee confirmed an award of merit given to it.

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE monthly committee meeting of this society was held at the Royal Horticultural Hall, Vincent Square, Westminster, recently, Mr. Charles H. Curtis in the chair. Three new members were elected and one nominated. The death certificate of the late Mr. R. H. Robinson of Heverham was produced, and the amount standing to his credit in the society's books, viz., £43 12s. 11d., was directed to be paid to his nominee. Fourteen members were reported on the sick fund, the amount paid out for sickness during the month being £41 8s. The next meeting will be held on June 19, the 12th being Bank Holiday.

ASHBY-DE-LA-ZOUCH HORTICULTURAL SOCIETY.

THE fourteenth annual show will be held on Wednesday, July 19. All entries must reach the secretary—Mr. J. H. Dunmore, Alandale, Moira Road, Ashby-de-la-Zouch—not later than 10 a.m. on Monday, July 17.

LATE NOTES.

Royal Botanic Society's Exhibition.—This will be held on June 7, 8, and 9 in their gardens, Regent's Park. The exhibition will be opened by Princess Alexander of Teck. Bands will play daily from 2.30 to 6 p.m. Conferences and lectures will be held during the exhibition. Gold, silver-gilt, silver and bronze medals, and diplomas will be awarded. Insurance will be effected on all tents and buildings utilised, but otherwise exhibitors must insure their own goods. Refreshments will be provided. Baker Street Station is 5 minutes; Great Central, 10 minutes; Great Western, 15 minutes; Euston, 15 minutes; and Midland and King's Cross, 15 minutes from the gardens.

A Rose show in connexion with St. Peter's Garden Fête will be held at Battenhall, Worcester, on Thursday, June 29. Upwards of £25 in prizes is offered. Nurserymen are invited to exhibit groups, &c. Entries are solicited from professionals and amateurs by the hon. secretaries, Messrs. A. R. Edgington and J. H. Daniels.

The raisers of The Bullet Brussels Sprouts.—Messrs. Fisher, Son, and Sibray, Limited, Royal Nurseries, Handsworth, Sheffield, write: "In your valuable paper of the 6th inst. we notice Mr. G. Wythes gives a full description of Brussels Sprouts The Bullet, which variety deserves all the praise he bestows upon it, especially where this valuable vegetable is grown in private gardens where high quality is required. This variety was sent out for the first time by us in 1890, and not by the firm Mr. Wythes names in his letter."

A new Rhubarb.—Hardly one-half the members of the fruit committee caring to vote, an award of merit was, by nine votes only, granted to a new variety of Rhubarb at a recent Royal Horticultural Society's meeting. Besides the fact that the stems were rather longer than those usually seen, and probably distinct from other varieties, it had no other special merits. Certainly for half-forced stems these had not the very rich colour seen in some other varieties. Well may it have been asked whether any new Rhubarb now was worth an award of merit, so trifling, indeed, are the divergencies or improvements found in them. There will be growing at Wisley, when each named variety in commerce is there collected—and the existing collection is a large one—some fifty varieties. It is really too ridiculous to assume that there is need in gardening for one-fourth of these. Possibly when well established next spring it may be possible for the fruit committee to overhaul this big collection.—A. D.

The National Fruit Growers' Federation.—For some months past the National Fruit Growers' Federation has been holding its meetings within the hospitable walls of the fine new hall erected in Vincent Square by the Royal Horticultural Society, and this contact seems likely to produce results beneficial to the industry in which the two societies are interested. A conference has been arranged under their united auspices for October 10, 11, and 12 next, when it is understood the following will be amongst the subjects of discussion: Foreign competition and how to meet it, grading and packing, land tenure and rating difficulties, railway grievances, the proposed establishment of an experimental fruit farm by the Board of Agriculture, and insect pests. The chairmen for the different discussions will probably be Sir Trevor Lawrence, Bart., Mr. A. S. T. Griffith Boscawen, M.P., Sir Albert Rollit, M.P., Colonel C. W. Long, M.P., and Mr. F. S. W. Cornwallis. As the great autumn fruit show will be held in the building at the same time as the conference, the combined attractions are expected to secure a large attendance and a very successful gathering.

Bowdon Amateur Horticultural Club.—The spring meeting was held on Friday evening, the 28th ult., in the Downs Lecture Hall, when twenty-two members staged a very creditable collection of spring flowers from what are all practically suburban gardens, nothing that has been grown under glass being admitted. Dr. Mules of Gresford and Miss Hopkins, F.R.H.S., of Mere were the judges, and awarded full marks (16) and the certificate of merit to Mrs. and Miss Ward for their beautiful and varied collection. Five other members obtained 11 marks each. This being the third and last meeting of the club's first year, the silver Challenge medal was presented to the winners of the highest total number of marks for the year, Mrs. Hall, The Grange Hall, and Mrs. Duggan, The Downs, Altrincham (hon. secretary), being bracketed equal, each having obtained 37

out of a possible 48 marks. Miss Hopkins of Mere afterwards read a short but interesting paper on "Rock Plants," which was well illustrated by a pretty display of Saxifrages, Aubrietias, Auriculas, &c., set up by this lady, and a discussion followed. Dr. Mules of Gresford kindly brought over a magnificent gathering of St. Brigid Anemones and Mme. de Graaff Daffodils, which for size and colour could rarely be beaten, and proved of much interest to the members.

The Henry Eckford Testimonial.

The contributions to this fund up to Saturday evening, the 6th inst., are as under:

Previously acknowledged	Shgs.	Miss M. Montagu	Shgs.
Ledged	.. 429½	Mr. Lester C. Morse	.. 3
Mr. N. F. Barnes	.. 12½	(Messrs. C. C. Morse	
Messrs. Barr and Sons	.. 21	and Co.)	.. 100
Mr. W. A. Bilney	.. 10	Mr. W. W. Osmond	.. 1
Mrs. Conn.	.. 1	Mr. Wm. Sanderson	.. 2
Mr. C. H. Curtis	.. 5	Mr. Robert Sydenham	.. 42
Miss Julia Grierson	.. 2	Mrs. Mann Thomson	.. 10
Mr. C. Hazelgrove	.. 1	Mr. W. J. Unwin	.. 2½
Mr. J. Leishman	.. 1		

Carnation Queen Louise.—This is a beautiful white-flowering variety for the early spring months. The flowers are large, shapely, non-splitting, of the purest white, and very fragrant.—S.

THE KITCHEN GARDEN.

FORCED CAULIFLOWERS IN SPRING.

FORCED vegetables are objected to by many, but each year the numbers decrease, as, with care in cultivation, forced vegetables are equal, indeed, often superior, to those grown in the open. Few vegetables force more readily than the Cauliflower at this season, and those who do not force from start to finish under glass often hasten on the plants at the beginning, and by so doing gain considerable time. For many years I grew my first early Cauliflowers from seed sown early in September, and the majority of the plants were under hand-glasses, that is, sheltered during the winter, others being grown in frames and planted out. Having a much greater demand this had to be met, and, strange as it may appear, the September sowing, though still continued, is now our second or third supply. Much better results as regards time are obtained by sowing four months later and growing on rapidly. Years ago we had not such Cauliflowers as Veitch's Extra Early Forcing, Snowball, Sutton's First Crop, and Carter's Defiance Forcing, small early sorts that may be had fit for the table in little more than three months from the date of sowing, if grown under glass from the start. Much fire-heat is not necessary after the plants are well above the soil. Much better results follow slow forcing and by getting as much warmth from sun-heat as possible. Our frame plants for the May supply are grown in cold frames, and doubtless the quality is even better than with plants given more warmth. Another point worth observing is that frame-grown Cauliflowers given too much warmth at the start, "bolt," and, of course, are useless.

A few words as to culture and the varieties we find most reliable may not be out of place. As most growers know the most difficult period of the year is the first three months, and, I may add, Cauliflowers are none too plentiful in April, but as regards this month so much depends upon the variety. I have sown Snowball in January in heat, and grown the plants on from start to finish in pots in a warm frame and had nice little heads in twelve weeks. I do not say this is a profitable way of culture, but this in our case must not be considered—the demand must be met. The introduction of Snowball and similar varieties

was a great gain to forcers who require this vegetable as early as possible. Doubtless the best method of culture is to sow in December such varieties as Sutton's First Crop or Veitch's Early Forcing in a warm frame, prick out when large enough into boxes or pots, and make a warm bed of fresh leaves and manure, the material being got into condition by frequently turning. Place good loam over the soil, and when this is placed in the frame a short time in advance of the planting it will be warm through. Each plant is lifted with a ball and placed in the frame and kept close for a few days. These plants will give a supply in April, and the produce will be all one can desire. Such sorts as advised above make a small growth, so that a good number can be grown in a limited space, and the frames when the Cauliflowers are cut are useful for Marrows or similar plants.

A succession may be secured by sowing seed early in February, or plants from the first sowing may be used. These planted out without bottom-heat form a good succession to the ones noted above, and for this purpose Carter's Defiance Forcing is an excellent variety. It is a little larger than the others, but a very quick grower. We have found this variety most serviceable when sown early for the first crop in the open. When sown in a cold frame in February, and planted out early in April, good heads are obtained early in June, so that they will closely follow the frame-plants. We always plant a good number of these small Cauliflowers between the rows of dwarf early Peas; the latter are protected, and this just suits the Cauliflower, the varieties used being of small growth. They are cleared in advance of the Pea crop. Another plan, and a good one also, is to plant out in deep drills on a south border at the foot of a wall. These plants when covered for a time turn in fit for use at the end of May. There is no lack of good early varieties, they are reliable for the season named if not coddled too much at the start. Few plants suffer more by crowding in the seed-pan or bed, or excess of heat at the root or otherwise, and I have seen it stated that to avoid this autumn-sown plant are best, but this is not my experience. The small growers, sown say in September, often bolt, whereas sown three or four months later, and grown without a check, they rarely fail.

G. WYTHES.

OBITUARY.

CHARLES MOORE.

THE death is announced of Mr. Charles Moore, for over forty years curator of the Botanical Gardens, Sydney, New South Wales, in his eighty-sixth year. While there he enriched the gardens with many introductions of new and rare plants. It was through him that the Kentia Palm was introduced from Lord Howe's Island, and many are the plants associated with his name, as, for instance, Alsophila Moorei and Kentia Moorei. The thirty-second volume of THE GARDEN for the half-year ending December 31, 1887, was dedicated to Charles Moore, and his portrait was then published.

GARDENING APPOINTMENTS.

MR. H. TREEN, for upwards of eight years head gardener to A. H. Benson, Esq., Ankerwycke, Wraysbury, Bucks, has been appointed gardener to S. M. Roosevelt, Esq., Roosevelt Hall, Lake Skaneateles, New York State, U.S.A.

MR. F. G. BREWER, the Grange Gardens, Brentwood, and previously three years gardener to R. E. Johnston, Esq., Terlings Park, near Harlow, Essex, as gardener to C. G. Beale, Esq., Bryntrion, Bontddu, Dolgelly, North Wales.

MR. R. S. SEABORNE, for some time plant and fruit foreman in the garden of G. F. Moore, Esq., Chardwar, Bampton-on-the-Water, Gloucester, and previously at Glenheim and Kew, has been appointed gardener to Peter Howe, Esq., Luscombe Castle, Dawlish, South Devon, and took charge on the 17th inst.

* * The Yearly Subscription to THE GARDEN is: *India*, £s. 6d.; *Foreign*, 8s. 9d.

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MAY 27, 1905.

THE PARIS FLOWER SHOW.

AN International horticultural exhibition was opened in Paris on Saturday last, and will remain open until the end of this week.

A detailed report is given on another page. President Loubet, the Minister of Agriculture, and other members of the Ministry, and Mme. Loubet visited the exhibition on Saturday morning, and were received by M. Viger, president of the society, M. Truffault, and other vice-presidents, M. Abel Chatenay, the general secretary, M. Nombrot, the assistant secretary, and other officials. The Royal Horticultural Society of England was represented by the following gentlemen: Captain G. L. Holford, C.I.E., Sir Albert Rollit, M.P., Mr. J. Gurney Fowler, Mr. Harry J. Veitch, and the Rev. W. Wilks. The Earl of Ilchester and Sir Trevor Lawrence, Bart., whose names were in the official list as members of the deputation, were not present. Medals of the Royal Horticultural Society were awarded by its representatives to the most meritorious exhibits.

The Paris International Horticultural Exhibition may be briefly and truthfully described as a garden of flowers. It was held in a large glass-roofed building, partly permanent and partly temporary, in the Cours La Reine, near the Champs Elysée, on the north bank of the Seine.

Almost without exception the exhibits were arranged in the form of beds and borders, and to all appearances the various plants and flowers formed items in one vast parterre or series of parterres. Immediately inside the entrance gates were groups of evergreen shrubs, conifers, fruit trees, Ferns, and hardy flowering plants, providing a suitable approach to the glass houses in which the exhibition proper was held. The first part of the building—of circular shape with glass dome—was devoted to Orchids, and here were gathered together some of the best plants from the collections of French Orchid enthusiasts. This, like the rest of the building, had a ceiling of canvas, and the sides were effectively draped with similar material, while immediately above and behind the plants hung thin, pale yellow

cloth, gracefully arranged around mirrors, wherein were reflected the brilliant colours of a thousand Orchids.

Through banks of ornamental foliage one passed to a large oblong-shaped building, transformed, for the time being, into a garden of beds and borders of formal design, each one filled with some of the finest plants and most brilliant of flowers—a galaxy of rich colouring. Exactly in the centre stood a huge standard Rhododendron, and beneath it in a circular bed were massed multi-coloured Calceolarias. Long beds, brilliant masses of zonal Pelargoniums, Begonias, and Roses, filled the middle portion of this building, and on either side, gently rising to higher ground, were banks of Cannas, Clematises, stove and greenhouse plants in bewildering variety. Interspersed were plots and verges of greenest grass, with here and there groups of towering Palms, giving relief from an almost overpowering display of colour.

Passing through this garden of flowers one entered a long corridor, its glass sides hidden beneath groups of Rhododendrons and Azaleas—an introduction, as it were, to the still more extensive exhibition of these plants beyond. There were banks and beds and borders of them, one mass of flower and greenery, a scene that no pen picture can adequately describe—a scene that needs the brush of an artist faithfully to depict. The Ghent Azaleas in rich yellow, old gold, orange, and almost red, vied with huge Rhododendrons in greater variety, though less brilliancy of colour, and together they formed a miniature forest of shrub and flower. On the left as one passed down was a steep slope reaching to the very edge of the swiftly-flowing Seine, a slope that ordinarily serves but to lead to the river, yet now is a bank of flowers, flowers that are easily grown from seed, annuals most of them. There were hundreds of them here, from the brilliant Poppies and Marigolds to the Toadflaxes and Rock Cress, modest in growth and colouring, chiefly those flowers that may be seen to perfection in what we call an old-fashioned English garden. In other parts of the building, all unobtrusively yet effectively draped with the lightest of canvas, were numerous beds and borders—masses of brilliant colour, each an item to be admired, yet part of one harmonious design. There were Japanese Irises, Cannas, Carnations, Begonias,

Hydrangeas (blue and pink), Pæonies, and many more in profusion, yet the grass edges to the beds, the bits of lawn here and there, and the carefully-interposed groups of greenery prevented any approach to garish colouring.

The building given up to the exposition of floral decoration as practised by the Parisian was filled with the choicest productions of the skilled worker. There were huge vases and baskets of Lilac, Hydrangeas, Roses, and Lilies, most of them white; fireplaces filled with the gorgeously-coloured Azaleas; tables that were graced with the choicest Orchids, and all arranged so deftly and with so light a touch that despite the wealth and richness of the material there was no suspicion of its having been too freely used. Such in brief is this International flower show, a gathering of plants and flowers from various countries, though chiefly from France, each exhibit admirable and beautiful in itself, but so charmingly associated the one with the other as to produce an even more admirable whole.

THE EDITOR'S TABLE.

"POLYANTHUS-PRIMROSES."

We object to this name for what are, after all, only Polyanthuses, but that is all we have to write against the flowers which we have received from Mrs. Malcomson, Springfield, Portlaw, County Waterford. The flowers were very fine in colouring, free, and in all ways represented a beautiful group. They were raised from seed, and chiefly from hybrids of Wilson's Blues. The flowers are on quite tall stems, some as much as 13½ inches in length.

HARDY HIMALAYAN RHODODENDRONS.

Mr. Reuthe sends from his hardy plant nursery, Keston, Kent, flowers of several Himalayan Rhododendrons. The flowers were from plants grown out of doors, the only protection given being a slight covering to the flowers during frosty weather. Among the kinds sent were the well-known R. arboreum and its white form album, R. Thomsoni, R. eximium, R. Aucklandi, and R. A. rubrum.

SCHIZANTHUS FLOWERS.

Mr. Paxton sends from The Gardens, Branches Park, Cowlings, Newmarket, flowers of Schizanthus, which show an interesting and beautiful variety of colours, from white to the deepest purple. The seed was sown on August 1 last, and the seedlings were potted off as early as possible into 3-inch pots. About the end of

November they were transferred to 4½-inch pots. When the pots begin to get full of roots soot water is given twice a week, and when the flower-buds show Bentley's Carnation Manure is applied also, and sheep manure and soot in liquid form at intervals. The plants are grown on a shelf in the cool greenhouse all the winter with plenty of light.

HYBRID PRIMROSES AND POLYANTHUSES.

Mr. Alva J. Hall, florist, 12, Parliament Street, Harrogate, sends a bunch of each of his strain of hybrid Primroses and Polyanthus, from seed grown on a northern border in a cold, stiff, and clayey soil. In this position, our correspondent writes, the plants thrive marvellously, and the flowers have been even finer than those sent. Rain, cold, and sparrows have rather spoilt them, but if these are the poorest of them, very beautiful must be those in the pink of condition. The flowers were of excellent colours, strong, pure, and distinct, and we gather from this that the strain must be unusually effective in the garden.

SOLANUM AVICULARE.

It is a pleasure to receive flowers of this beautiful and uncommon *Solanum* from Mr. F. W. Rich, The Gardens, Elfordleigh, Plympton, South Devon. The flower is about 2 inches across, and of a beautiful blue colour, reminding one of those of *S. Wendlandi*. This *Solanum* is quite hardy in various parts of Cornwall, where in some places plants are to be seen over 4 feet through. Our correspondent writes: "I am planting out a few in the open air, and should they prove hardy here they will make a valuable addition to our gardens, as blue-flowered shrubs are always welcome. The plants from which the flowers sent were picked have been growing in a cold Peach house all the winter, and have been frozen hard on two occasions."

PERSIAN CYCLAMEN FLOWERS FROM THE OPEN GROUND.

An interesting contribution to our table comes from Mrs. L. de L. Simonds, Audley's Wood, Basingstoke, consisting of exceptionally fine flowers of a white Persian Cyclamen, gathered from plants in the open garden, with the following note: "I think it may interest you to see some flowers of giant Cyclamen from plants which have been out for two winters. We planted them out in the late spring of 1903 after they had flowered in the greenhouse, and they have had no protection except a few ashes over the crowns. They are under a wall facing south-south-east."

FORTIN'S LILY OF THE VALLEY.

From The Gardens, Parkfield, Hallow, Worcester, Mr. S. Hurlstone sends a splendid lot of blooms of Fortin's Lily of the Valley, some of the finest we have ever received. Mr. Hurlstone writes: "The plants are growing in a border facing east in stiff soil. Each year we take up a patch as required for forcing, and plant the smaller crowns again. I have never seen finer crowns than they make. Each spring we place an old frame over some, so as to have them a few days earlier. At the present time the border is a mass of bloom-spikes, some fully open, others in bud. These plants force capitally, and every one remarks on the fine spikes and bells."

TULIPS FROM IRELAND.

From Ard Cairn Nurseries, Cork, Mr. W. B. Hartland sends flowers of the beautiful Tulip Fawn. The petals are flushed with rose upon a white ground, and a fawn or buff tint pervades the base of the flower. Golden Spire is a handsome Tulip, a long deep flower, rich yellow, tinged with red on the margins. The scented *Didieri alba* is always welcome, and *Illuminator* is very bright. It is yellow, heavily marked with bright red, one that would be showy in the mass.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

May 30.—Royal Horticultural Society's Temple Show (three days); Bath and West of England Show (five days).

June 1.—Rhododendron Exhibition, Botanic Gardens, Regent's Park, throughout the month.

June 7.—Royal Botanic Society's Show (three days).

June 26.—Isle of Wight Rose Show.

June 28.—Farnham Rose Show; Southampton (two days).

June 29.—Canterbury, Reading, and Walton-on-Thames Rose Shows.

July 1.—Warminster and Windsor Rose Shows.

July 3.—Maidstone Rose Show.

July 4.—Sutton Rose Show.

July 5.—Brockham, Chippenham, Croydon, Ealing, and Hereford Rose Shows.

An interesting evening at the Linnæan Society.

Thursday, May 18, may be called a red letter day in the history of the Linnæan Society. The occasion was an interesting one, a dinner given by the hon. treasurer, Mr. Frank Crisp, Friar Park, Henley-on-Thames, at the Prince's Restaurant to the recently elected lady members of the society. The chair was occupied by Mr. Crisp, who was supported by Her Grace the Duchess of Bedford, Sir Mountstewart Grant Duff and Miss Grant Duff, Sir C. and Lady Maclaren, Sir Trevor Lawrence, Bart., and Lady Lawrence, Sir John Evans and Lady Evans, Sir E. Busk and Lady Busk, Sir E. Fry and Miss Fry, Sir George Watt and Lady Watt, Dr. and Mrs. Westlake, the Hon. N. C. Rothschild, Sir Benjamin Stone, Sir Albert Rolit, Professor Ray Lankester, Dr. A. Scott, Mr. and Mrs. Kempe, Miss Cambarde, Miss Bonham Carter, Mr. Jackson, R.A., Professor Seeley, Professor Meldola, Mr. William Robinson, Professor Herdman, Mr. G. F. Saunders, Professor Oliver, Dr. Rendle, Dr. Chalmers Mitchell, Professor R. Green, Professor Poulton, Mr. Britten, Professor Balfour, Dr. D. H. and Mrs. Scott, Mrs. Crisp, Professor Marshall Ward, Dr. and Mrs. Veley, Mr. John Crisp, Mr. C. O. Crisp, Mr. B. Crisp, Mr. Massee, Mr. E. T. Cook, and Mrs. Ogilvie Gordon. The chairman, in proposing the chief toast of the evening, "The Lady Fellows of the Linnæan Society," gave an interesting and able address, in which he traced the origin of the movement which had culminated in the meeting together that evening of the new lady Fellows and others concerned in the welfare of a famous and honourable society. The Duchess of Bedford, in a few admirably-delivered words, responded, and among the other speakers were Professor Vines, Professor Lankester, and Sir Trevor Lawrence. The White Viennese Band played during dinner.

The British Gardeners' Association.

A public meeting of the British Gardeners' Association will be held in the Memorial Hall, Farringdon Street, E.C., on Thursday, June 1, at 8 p.m. Members of the association are expected to be present in large numbers, and it is hoped that other gardeners interested will attend to hear the report of the present acting committee, which will, we believe, be very encouraging to the movement. The voting papers for the election of the executive council have been distributed, and the result will be announced at the meeting. The chair will be taken by Dr. M. T. Masters, F.R.S.—A meeting organised by the North Ferriby and District Gardeners' Society was held on the 6th inst. It was attended and addressed by Messrs. Donoghue and Carter as delegates from the Yorkshire branch of the British Gardeners' Association. Nearly all of those present promised their support to the association, which it was agreed would do much to raise the standard of the profession.

Special offer of imported Orchids.—Messrs. Charlesworth and Co., Heaton, Bradford, are offering a special lot of imported Orchids, an importation consisting of no less than 10,000 *Phalenopsis rimestadiana*, collected and brought to Bradford by the discoverer, M. Rimestad, together with fine plants of *Dendrobium Phalenopsis schröderiana*, *P. amabilis*, *Celoglyne pandurata*, *Habenaria Susanæ*, *Vanda hookeriana*, *Cattleya Trianae*, and an entirely new *Dendrobium* offered for the first time.

Kew Guild dinner.—We are requested to remind our readers who are Old Kewites that the annual dinner of the Kew Guild will take place at the Holborn Restaurant on the 29th inst. at 7.30 p.m.

National Rose Society.—The annual exhibition of this society, which for the past two years was held in the Temple Gardens, this year will be held in the Royal Botanic Gardens, Regent's Park, N.W., on Thursday, July 6. Three champion challenge trophies will be competed for, numerous cups, and pieces of plate and money prizes to the value of £270. The provincial exhibition of the society will be held at Gloucester on Tuesday, July 18, and the autumn Rose show in the Royal Horticultural Hall, Westminster, on Tuesday and Wednesday, September 26 and 27. The annual report, which has just been published, is, the committee considers, the most favourable that has yet been placed before the members, for there is not a single branch of the work which does not show during the past year a distinct advance. It may not be generally known that the late Dean Hole, whose loss the society deeply deplores, presided at that memorable meeting of rosarians in 1876, when the National Rose Society was founded. Reference is also made in the report to the death of the Rev. A. Foster-Melliar. The receipts in gate money at the Temple Rose show exceeded those at the previous exhibition by nearly £100. This advance, together with the large amount received in subscriptions from new members, has placed the finances of the society in a most encouraging position. The balance in the treasurer's hands at the end of the year was £318 19s. 11d. The contributions to the Dean Hole Memorial Fund already amount to £107 2s. 6d. Subscriptions may be sent to Mr. E. Mawley, Rosebank, Berkhamsted, Herts. It is hoped to be able to raise £500.

Ealing Horticultural Society.

This society, which has been in existence forty-one years, held a public dinner on the 11th inst., the object being to bring the claims of the society before the large number of residents in the locality who do not support it. The Mayor occupied the chair, and there was a fair attendance, generally of those who are supporters of the society. The present position of the society, with a diminished exchequer and a reduced membership, is mainly due to the little publicity given to the work of the society locally, and to a too evident lack of interest in the proceedings of the society on the part of the committee. The annual exhibition is fixed for July 5, and will be held in Walpole Park, by permission of the Corporation.—R. D.

Henry Eckford Testimonial.—The contributions received on behalf of this fund to Saturday evening, the 20th inst., are as follows:

	Shgs.		Shgs.
Previously acknowledged	7033	Mr. E. C. Devine	1
Miss Boosey	1	Miss Dundas	2½
Mr. F. J. Clark	2	Mr. H. Low	1
Rev. Henry Cowling	2	Mr. James McKellar	2½
		Mr. W. J. Smith	1

Oncidium altissimum.—Mr. Paxton, The Gardens, Branches Park, Cowlinge, Newmarket, sends a photograph of this interesting *Oncidium altissimum*. The spike measured 10 feet 3 inches in length, and had 298 flowers on it.

Double Arabis.—Great as is the addition made by this hardy plant to our spring flowers it would be a misfortune, when quite early flowers are desired, were it made to displace the old single form of *Arabis albidia*, as that blooms very early. There is, indeed, of *albidia* a strain that is earliest of the early, as I have seen in some of those market establishments where great quantities of hardy plants are grown for market sale, but I do not know that it has been by name recognised as specially early. My experience of the *Arabis* is that a good early strain of the single form is some two or three weeks earlier than the double, and because of its denser and more compact growth it is a more perfect mass of bloom. Some day it is to be hoped there may be produced an *Arabis* having flowers of the colour of Dr. Mules, or Fire King *Aubrietias*, or else that we may get an *Aubrietia* of one or other of those hues as early and strong as is the *Arabis*. Of such *Aubrietias* as we have, unfortunately not half enough is made of them in our spring gardens.—A. D.

Berberis Darwinii as a hedge.—What a splendid hedge this *Berberis* makes when thoroughly established! This is not at all difficult in any ordinary deeply-dug and well-manured soil. Severe frost does at times give some of the plants a rude shake, killing off odd branches here and there, but the gaps are soon filled; the plants grow so fast in the spring. It is a good plan to put in alternately a plant of common Holly; this shields the *Berberis* somewhat. In training, upright sides with a flat top have a good appearance, and 6 feet is a good height for a hedge. Do not clip the hedge in spring until after flowering time in May, and thus have the benefit of the full flower crop.—E. M.

Tufted Pansies and their improvement.—While certain raisers of new Tufted Pansies (*Violas*) are devoting their attention to the perfection of the flower from a florist's point of view, it is encouraging to know that others are thinking of its aspect in the garden. One need not look far to see the progress that has already been made, especially with the sorts of recent introduction. Quite recently the writer of this note was inspecting half a million plants grown almost exclusively for planting in beds and borders for the garden. In the majority of instances the plants were of excellent growth, tufted in fact, and they were studded with buds and blossoms. A careful inspection proved most conclusively the improvement that is taking place. In each colour so many charming intermediate shades are now represented. Yellows range from the palest primrose to the richest orange yellow; whites from the purest snow white to a rich cream; blues from a pale French blue, as seen in Bridal Morn, to a striking imperial blue, besides many other less pronounced colours, and an infinite variety of margined flowers. The older rayed flowers appear to be finding less favour than the newer rayless blossoms, the latter being refined in appearance, and invariably very sweet-scented. Growers should look very carefully into this matter and acquire stock of the useful tufted sorts only.—D. B. C.

Kalmia glauca.—The few species of *Kalmia* are all showy shrubs and worthy of attention in gardens where peat-loving shrubs thrive. Three species are now grown, *K. angustifolia*, *K. glauca*, and *K. latifolia*, and two other species, *K. cuneata* and *K. hirsuta*, are mentioned by Loudon. The one under notice is found in boggy ground on the borders of lakes in Canada, and in the bogs on the mountains of New York, Pennsylvania, and other places. It was introduced in 1767, and grows 1½ feet or 2 feet high. The leaves are a little more than 1 inch long with revolute margins, dark green above and glaucous beneath. The flowers are bright red, and borne in terminal heads during the last week in April and May. For a bed on a

lawn where a neat shrub is required it is an excellent subject, as when in flower it forms a conspicuous object from a considerable distance, and being of a neat, slow growing character, it will last for many years without requiring transplanting. Sweet soil is absolutely essential to success, as is the case with all these choice ericaceous shrubs.—W. D.

Bryanthus empetriformis.—The Herb family contains a number of beautiful hardy-flowering shrubs, and *Bryanthus empetriformis* is one of the number. When well grown it rarely exceeds 6 inches in height, forming a dense Heath-like mass of small shoots clothed with tiny evergreen leaves, which are very narrow and less than half an inch long. The flowers are small, a pretty shade of pale red, and borne in terminal heads, each head containing from twelve to twenty flowers. It is a North American plant, and has been in cultivation for about a century. In addition to the above name it has been called at various times *Menziesia empetriformis*, *M. Grahami*, *Phyllodoce empetriformis*, and *P. Grahami*. Other species of *Bryanthus* are *B. Breweri*, from Sierra Nevada and California, and *B. taxifolius*, widely distributed through the cold parts of the northern hemisphere. There is also a plant known as *Bryanthus erectus*, which is a hybrid between *B. empetriformis* and *Rhodothamnus Chamæcistus*. It is, however, very uncommon, and it is doubtful whether the correct thing is in cultivation in more than two or three gardens in the country; in fact, it would be interesting to know where it is to be found doing well. When seen in good condition it is a delightful little plant.—W. DALLIMORE.

Ipomœa rubro-cærulea outdoors in London.—Before any authoritative opinion is further expressed as to the unfitness of this most beautiful climber for outdoor culture in the London district, I would suggest that the opinion of Mr. James Hudson of Gunnersbury House Gardens be obtained. Last autumn, on quite a dull, wet day, when the Kingston Gardeners' Society, of whom your esteemed correspondent Mr. E. H. Jenkins is a member, and was present, visited Gunnersbury House Gardens, several plants of this lovely *Convolvulus* were seen blooming abundantly, and, indeed, constituted one of the most striking as well as interesting features of the day, as so few of the visitors had previously seen it. The several plants were growing up supports close to a south wall. As it was somewhere between four and five o'clock on this dull wet day when the plants were seen it is evident that the flowers remain open till a late hour. When plants can thus be grown and flowered so well at Gunnersbury, why not elsewhere in warm positions in the London district?—A. D.

The Mediterraneanan Heath (Erica mediterranea).—This is one of the freest of all spring-flowering shrubs, and it or its varieties may be had in beauty for six or seven months of the year. It belongs to the tree set of which *Erica arborea*, *E. scoparia*, and *E. lusitanica* are other examples, and like them is a native of Southern Europe, being, however, found further north than either of the others. While its head-quarters are south-west France and Spain, it is also represented in Ireland, in Mayo and Galway, by the variety *hibernica*. The type has been in cultivation for upwards of 300 years, though it cannot now be said to be really common, owing, no doubt, to the fact that occasionally in very severe winters it is badly cut by frost. As a rule it is from 3 feet to 5 feet high, though it is said sometimes to attain a height of 10 feet, Loudon, in fact, mentioning plants 10 feet high that had stood for half a century in the grounds at Syon, being killed to the ground in the winter of 1837-38. It is of dense, bushy habit, covered with short, dark green leaves, and bears from March to the end of June a profusion of small red flowers. Several distinct

varieties are grown, of which *alba*, with white flowers; *glauca*, with glaucous leaves; *hibernica*, the Irish form; *hybrida*, supposed to be a cross with *E. carnea*, and *nana*, of dwarf, compact growth, are the best. *E. m. hybrida* is exceptionally floriferous, as it commences to bloom in November and continues to do so until May, being in first-class condition for four months. For large beds this plant and its varieties are invaluable, while for groups in the shrubbery they are also desirable.—W. DALLIMORE.

Saxifraga cordifolia.—This Siberian Saxifrage, with its huge bright pink panicles of flowers, which are freely produced in April and May, is a capital plant for the border when grown in a mass. The foliage is deep green in summer, with a bronzy tint in winter. Propagation is simple. Offsets pulled off with a piece of root attached and dibbled in sandy soil in April quickly make stocky plants, and flower the following season.—E.

Proposed park for Penicuik.—For some time negotiations have been in progress between the Town Council of Penicuik and the Penicuik estate trustees, for the acquisition by the former of a suitable park for the burgh. Provost Wilson, who was acting on behalf of the Corporation, having secured a favourable offer from the trustees, the council called a meeting of the ratepayers, which was held the other evening, to consider the matter and to express approval or disapproval of the arrangement. It was explained by Provost Wilson, who presided, that the trustees were willing to lease to the council for the purposes of a public park what was known as the Garden Park, at a rent of £1 15s. per acre—a low rent—and that the council, who had the option of a lease up to 100 years, proposed to take one for a term of twenty years. The park selected is one which has an interesting history, as at the time of the Peninsular War it was leased by Alexander Cowan of Valleyfield, a progenitor of the present Mr. Alexander Cowan of Valleyfield, also a keen gardener, for the purpose of providing ground on which the French prisoners of war interned at Penicuik could grow vegetables and fruit. After some discussion the action of the council was approved of almost with unanimity and with much enthusiasm.

Schizanthus at Corhampton House.—I recently saw an extremely fine batch of 100 plants of the *Wisetonensis* variety of *Schizanthus* in these gardens, which are so ably managed by Mr. F. Cawte. Plants growing in 7-inch pots were 2 feet 6 inches wide, and as much in height, each carrying about sixteen handsome spikes of blossom. Those growing in the ordinary 4½-inch pots were models of culture and floriferousness, ranging about 18 inches in height and 1 foot in diameter. The flowers were especially fine, embracing a wide range of colour. The seed was sown on August 9, 1904, under a hand-light and behind a north wall. The plants were potted off as soon as large enough to handle, and kept in a cold pit and a cool house during the winter. Ample space was given them to grow, thus keeping them stocky. The growth was uninterrupted, as no pinching of the leading shoots at all was practised.—E. M.

The Isle of Wight Rose show will be held on Monday, June 26 (Coronation Day), in the public park at Ventnor. We have taken Coronation Day, June 26, which is a public holiday in the island, as our permanent fixture.—G. E. JEANS, Hon. Secretary, *Shornell Vicarage, Isle of Wight*.

Iberis sempervirens superba.—Amongst the numerous varieties of perennial Candytuft this is quite a desirable form. The growth is vigorous, compact, and the flowers, which are freely produced, are of the purest white, while the individual petals are exceptionally large.—E.



PART OF THE SPRING GARDEN AT SCARLETS PARK, TWYFORD, BERKS.

***Inula glandulosa fimbriata*.**—Those who have not grown this *Inula* should lose no time in adding it to their collection, as it is a first-rate hardy border flower. The growth is at the present moment exceptionally promising, the plant having come well through the winter, although this has been quite mild. The flower is an exceptionally rich golden orange in colour and very fimbriated, thus rendering it an attractive plant. Moreover, it is one that lasts long in a fresh condition in a cut state.—E. M.

***Streptosolen Jamesoni*.**—How much better this evergreen greenhouse shrub succeeds when planted out as compared to its growth in pots! At the front of a cool house where light is freely obtained, its roots with a free run in fairly good soil, the plant rambles away, producing huge trusses of its orange red flowers, so different to those obtained from plants in pots. A close system of spur-pruning annually when the foundation branches are formed is required.—S.

Quaint Primroses.—In a slight hollow at Wisley, where at the bottom of the Bamboo Walk Primroses and other hardy spring flowers bloom so delightfully, there may be found the plants of a pale green-flowered Primrose, quite an oddity in its way, as the flowers seem to be devoid of petals, and really are in each case the calyx only. Amidst the many thousands of Primroses and Polyanthus now grown, it is quite rare to meet with the old Jack-in-the-Green, or Jackanape forms. These were found many years ago occasionally in gardens as distinct and enduring forms. I once crossed some of them, producing most strange forms and some distinctly beautiful, especially in using the pollen of a good crimson Primrose on Jack-in-the-Green. In that case flowers of large size and rich in colour resulted, but the large green and parti-coloured calyx remained. The Jackanape flowers had much laciniated forms of calyx, and were full of curious beauty. Some years ago Polyanthus gave many Hose-in-hose or duplex flowers, and these formed a separate strain; now they are seldom seen.—A. D.

Trials at Wisley.—The floral committee of the Royal Horticultural Society may look forward to a very interesting trial of Sweet Peas on a portion of the open, but quite freshly prepared ground, at Wisley. The plants are well up, are not crowded, and should, if no injury comes from wireworm or grubs, furnish later on a very charming show. Pæonies also will well merit attention, as also the various sections of the Pansy. The fruit committee will have to examine a very extensive trial of Peas and

Potatoes. Of the latter there are some 120 varieties planted. Although the ground is far from being highly fertile, every effort has been made to get it into good condition, so that these and other vegetables may have full justice done them. What was not possible at Chiswick because of the fogs is to be attempted at Wisley this year, as a very extensive planting of almost every known variety of Broccoli is to take place on the upland for trial. There will be a good trial of Tomatoes in some of the houses recently erected, and where the plants will grow under the most favourable conditions.

***Melianthus major* flowering.**—It is not at all an uncommon occurrence for *Melianthus major* to flower in the open air in the south-west, and I have met with it in blossom several times in various gardens. At the Cornwall Daffodil and Spring Flower Society's show at Truro, on the 4th ult., Mr. Howard Fox's first prize stand in the class for six varieties of outdoor flowering shrubs contained flower-spikes of *Melianthus major*. The plant at Rosehill is an enormous one, and must be fully 10 feet in height, and as much through. Here, at Kingswear, it flowers annually, and is now bearing three flower-spikes that are going to seed.—S. W. FITZHERBERT.

THE FLOWER GARDEN.

THE SPRING GARDEN AT SCARLETS.

ONE of the prettiest and most interesting spots to be seen during the spring months at Scarlets is the Rev. H. M. Wells's spring garden, which he has made since he bought the estate. A portion of this garden is shown in the illustration, which, I am sorry to say, does not convey to the readers what a beautiful sight it is at this time of the year with the various plants that are now in bloom.

Rambling over the stones are fine masses of the pretty *Arabis alba* flore-pleno, with *Aubrietias* in variety dotted among them. The charming yellow-flowered *Alyssum saxatile* adds colour to the other masses. Round the edges of some of the beds are to be found masses of the beautiful *Gentiana acaulis*. These are at home here, the foliage being studded with flowers, and quite a show in themselves.

A bed of St. Brigid Anemones makes a telling effect in one corner of the garden; there is also a mass of the Pasque flower (*Anemone Pulsatilla*) in one of the other beds. In other beds are masses of *Auriculas* in mixed colours, double Primroses, single blue Primroses, and mixed Polyanthus.

Dotted among other flowers are masses of *Primula denticulata* and *cashmiriana*, that have been much admired. Mention must also be made of the lovely little white and blue *Muscari*, not forgetting the white *Fritillaria Meleagris*, the *Erythroniums* (Dog's Tooth Violet) which have just gone over, all helping to add interest to this pretty garden. Many other plants could be mentioned, but we have noted those which are now a feature. J. B.

CLARKIAS FOR EARLY SUMMER FLOWERING IN BEDS.

THESE beautiful summer-flowering annuals from California are rarely seen at their best in our gardens, and it is very seldom that we observe them treated as pot plants for the greenhouse, verandah, or window. For blossoming late in the spring, in beds by preference, or masses in the herbaceous perennial borders, there are few plants that equal them for quantity of flowers and beauty of colour. In order to have Clarkias in April, May, and June, a sowing should be made thinly in 4½-inch pots early in October in the South and in the second week of September in the North. It is well to put the pots in cold frames forthwith, so as to shelter the soil from the drenching rains of that season when necessary, keeping it moderately moist. In November place near the glass in cold pits, standing them on a coal ash bottom. Thin out to the number of eight and finally to four plants per pot. Afford water at long intervals only during the winter, and at the beginning of the month of February shift into 6-inch pots, using a good loamy soil. Pot firmly and return to the cold pit, still keeping them close to the glass and affording plenty of air in mild weather. After due hardening off plant out in April without dividing the plants. If the soil of the beds or the stations in the border is well enriched, the pots should stand 1½ feet and 2 feet apart. Any of the varieties may be so treated, although *C. integripetala* is the best. F. M.

BORDER CARNATIONS IN POTS.

ALTHOUGH the border Carnation is one of our most valued plants, it is seldom that we can have too many of them or have them too long in bloom. Considering their beauty and general usefulness, their season of flowering in the open borders is all too brief, and any means that can be employed to prolong it is worthy of consideration and practice. Their proper blossoming season cannot very well be retarded or deferred for any length of time, but it may be prolonged by growing a number of plants in pots, and inducing them to come into bloom several weeks before those in the open. This is not new, as many years ago we were induced to follow it, through having seen plants in bloom in a cold frame several weeks before the same varieties came into flower in the borders. In both large and small gardens such early flowers, the result of very simple cultivation, prove most welcome, and those who do not succeed with the cultivation of tree varieties, or the different *Malmaisons*, will find no difficulty with the border varieties. We have found it better to grow only a few varieties.

Among the dark-coloured varieties Uriah Pike should be potted up as freely as space in cold frames or cool houses can be afforded, while another great favourite is Duchess of Fife. One need hardly refer to their lasting properties, and how well the blooms pack and travel. The

latter variety being a good colour under artificial light is much sought after for table decoration, and blooms cut with long stems can be more effectively arranged than the larger Malmaisons. The first lot of plants I saw some years ago were Gloire de Nancy. With this and the two mentioned we have three distinct colours, and others need not be added unless room can be provided.

It is not too late to pot on any plants that may be in small pots in cold frames, providing they are strong and well rooted, but the best returns are from plants which were established in their flowering-pots the previous autumn. An early start in summer should be made to layer a number of strong shoots, these when well rooted may be lifted and placed in 5-inch pots or 6-inch pots, sizes quite large enough for one season. After potting place the plants in a cool, shady position, and as they become rooted the pots may be plunged in ashes in a more sunny position until the beginning of October, when they should be placed in a frost-proof frame or cool greenhouse. Cool treatment should be followed at all times, for it requires very little to induce the flower-stems to appear the following April. The soil should be fairly light and porous, and made moderately firm. Very little water will be required until spring, then as the spikes advance weak manure water may be afforded. By allowing plenty of ventilation the flowers develop more strongly; to retain the colour some slight shade should be afforded. Having flowered it is not wise to retain and repot them for another year, better results are obtained from fresh layers annually. They may, however, be planted out, and will afford useful blooms the following season.

RICHARD PARKER.

WATER GARDENING.

SMALL PONDS AND POOLS

(Continued.)

THERE are still three important wild river-side plants that are worthy ornaments of the water edge. The yellow Loosestrife (*Lysimachia*) and the purple Loosestrife (*Lythrum*); both are excellent things to use in large masses at the edge of pond or pool. Of the *Lythrum* there is an improved kind with still brighter flowers than the type. Here is also the Tansy, a plant that makes a considerable show with its large level-topped corymbs of hard yellow flower. It is a plant that will grow anywhere, but is especially luxuriant near water.

The Water Violet (*Hottonia palustris*) is another pretty native that must have a place in the water garden. It should be somewhere near the path in rather shallow still water, so that the tufts of submerged leaves can be seen as well as the flower-spikes.

So far no plant has been named that is not wild in England, and yet here already is a goodly company; indeed, the foreign plants for the water garden are not so very many in number though they are extremely important.

The two great Gunneras, herbaceous plants with enormous radical leaves, something like the leaves of *Heracleum* six times magnified, are noble plants for the water's edge. No plant can be more important in the water garden; but its scale is so large and its whole appearance so surprising that it is well to let it have a good space to itself. The Gunneras are natives of the cooler mountain regions of the north of South America, but have proved hardy in England in all but the most trying climates. They are splendid in Cornwall and the south-west of Ireland.

A most important water-side plant is from Japan, the beautiful *Iris lævigata*. It rejoices in rich moist soil close to the edge of the water.

Another water-loving *Iris* of the easiest culture, liking a damp place by the water, is *I. sibirica*,

with its larger variety *orientalis*. If the two are planted together and young ones are grown from seed, which is borne freely and easily germinates, a whole range of beautiful forms will ensue. There are already several colourings of *I. sibirica*, the white being of special beauty, but all are good flowers, with their thick tuft of leaves gracefully bending over, and their daintily veined flowers borne on perfectly upright stems. This *Iris* has the hollow reed-like stem that proclaims it a water-loving plant.

The Cape has sent us a delightful water plant in *Aponogetum distachyon*, very easily grown in a shallow pond or tank. It has neat oval floating leaves and curious whitish flowers that fork into two flowery prongs; they have a white alabaster-like appearance and a scent like Hawthorn.

From North America comes one of the very best water-plants, *Pondetia cordata*, beautiful alike in its bold leaf and blue bloom. It flourishes in rather shallow water and is quite easy to grow. The upright habit of growth of its leafy flower-stems is unusual among aquatic plants.

The *Thalictrums* should not be forgotten; they are suited for much the same kind of massing on land at the water edge as the *Loosestrifes*, *T. glaucum*, the cultivated and improved form of an Austrian plant, being the finest.

The large white Daisy, *Leucanthemum lacustre*, though truly a plant for wet ground and water edge, I always think has a flower-garden look about it that seems to make it less fit for water gardening, where one wishes to preserve the sentiment of the more typical water-side and truly aquatic vegetation.

It would be well that a good planting of *Rhododendrons* should, at one of its ends or sides, come against a pond, though these shrubs are too large in size, and too overwhelming in their mass of bloom to combine with smaller plants. But in connexion with a pond of Water Lilies, the dark foliage of *Rhododendrons*, coming down to one shore and backed by the deep shade of further trees, preferably Spruce for the sake of their deep quiet colouring, would be a noble background for the white and tender tints of the *Nymphaeas*; and as the *Rhododendrons* would have done flowering before the main blooming season of the Water Lilies, the two sources of interest would not clash. This would be much to the advantage of both, while each would be suited with a place both fitting in appearance and suited to its needs.

I venture to entreat those who are about to plant *Rhododendrons* in watery places not to plant them, as has been done so often, on a small round island. I lived for twenty years in a

pretty place of some fifty acres where there were three streams and two good-sized ponds. In one of the ponds were three islands, two of them of fair size and closely wooded with Alders and large Grey Poplars and smaller underwood, but the third and smallest was the worst form of small round pudding of *Rhododendrons*, about 30 feet across. When ponds are being artificially made it is tempting to leave islands, and if well arranged and planted they may be beautiful, although, in nearly all cases, except where there is unlimited space, a promontory is more pictorial, and favours in a greater degree the sense of mystery as to the extent of the water and the direction of the unseen shore.

(To be continued.)

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

ENGLISH v. AMERICAN APPLES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have been much interested in the correspondence in *THE GARDEN* lately on this subject. I began to think there must be some truth in the statement that American Apples were better than English, so was very pleased to see Mr. Bunyard's letter denying it. I have not tasted an American Apple to equal home-grown ones until late spring, when ours are past their best. I think much might be done by a society formed to help the farmer by sending out a qualified man to prune his trees and graft good varieties on useless sorts, or plant with young trees of the right sorts for market use. He could also teach him how to store and grade the fruits for sale, and should there be more good Apples than the farmer has room for, fruit rooms might be provided by the society for their storage.

W. F. JELLY.

Corsley House, Warminster, Wilts.

CALLA ÆTHIOPICA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am sending you a photograph of a house of *Calla æthiopica* containing about forty plants. They were planted out in May and taken up in September, potted in 12-inch pots, and grown in a cool house through the winter with just sufficient heat to keep the frost out. The plants were from 4 feet to 5 feet high, and began to



A HOUSE OF ARUM LILIES IN THE GARDENS AT COMPTON BASSETT, CALNE, WILTS.

flower in January. At the time the photograph was taken 150 spathes were in beauty. I have cut in all about 300 blooms this season.

F. J. STONE.

Compton Bassett Gardens, Calne, Wilts.

FASCIATION IN DAFFODILS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—After reading Mr. S. G. Reid's note on fasciation in Daffodils in THE GARDEN of the



FASCIATED DAFFODIL.

8th ult., perhaps the accompanying photograph may be interesting. It is a *Horsfieldii*, which, as may be seen, has nine segments and a considerably enlarged trumpet. The number of anthers corresponded with the number of segments, which I have noticed occurs in such cases. I have had two flowers of *Narcissus incomparabilis* each with eight segments. These, so far from being a freak, as *N. Horsfieldii* most certainly is, cannot by any means be called ugly blooms. I found these in a friend's garden near here, and it will be interesting to see if the flowers are the same next season. I have seen Sir Watkin with eight segments, also Mme. Plomp, and have found *Ornatus*, *Flora Wilson*, and *Stella superba*, among others, with two blooms on a stem. When we hear of the *Pallidus præcox* in Mr. Reid's garden with six flowers it would seem that there is no limit to the sportiveness of the Daffodil.

W. A. WATTS.

PRIMULA FARINOSA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—When hunting after interesting forms of *Primula farinosa* in the spring of 1904 I came across quite a little batch of seedlings, which, apparently, were then flowering for the first time. The colour of the flowers was of a decided bluish shade. Before reporting this find I wanted to make sure of the constancy of this abnormal tint, and to my delight it came already strongly into evidence in the swelling buds during the whole of last week. The first truss having now fully opened its florets, these latter, under the influence of culture, have not only gained considerably in size, but are also of a bluish shade still more pronounced than last spring, when, probably, the colour had already suffered from exposure to a strong sun. I can now describe the tint as a very pleasing soft, yet

dark, mauve, such as might presumably result from a mixture of the colour of *P. capitata* and *P. denticulata*. I mean trying for deeper shades from seed. A few seedlings I had from them last autumn perished, alas! during the severe winter we have just passed through—a punishment for my impatience and a warning not to sow too early again.

E. HEINRICH.

Planegg, near Munich, Bavaria.

CALCEOLARIA VIOLACEA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This charming shrubby *Calceolaria*, referred to by "H. P.," page 249, requires a sheltered position, for cold gales are even more disastrous to it than frost. A fine bush about 4 feet high and as much through has been badly damaged on two occasions this spring by hail. Early in March an exceptionally heavy hailstorm occurred, the hailstones being unusually large. This destroyed all the younger foliage, and on the 31st ult. a severe southerly gale, accompanied by driving hailstorms, killed all the leaf-buds that had been formed since the first visitation, and the only sign of life at present are the leaves on the inner portion of the lower half of the bush, where they were sheltered by the stems and branches. The plant will doubtless recover during the summer, but there will be no flowers this year. In a neighbouring garden, where this *Calceolaria* is sheltered on all sides by the lie of the ground, and by trees and shrubs, not a leaf has been injured, and its first flowers are just opening.

S. W. FITZHERBERT.

DAFFODIL BAYLOR HARTLAND.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I send you a photograph of Daffodil Baylor Hartland, which obtained an award of merit from the Royal Horticultural Society of Ireland at Dublin. It measured 5 inches across at the widest part. It is a seedling from one I call *Ione* and *Horsfieldi*. Notice the roundness of the bloom with its broad, overlapping perianth, not seen to such advantage in any other large bicolor that I know. I am now trying, by intercrossing, to get red in the trumpet.

Cork.

W. B. HARTLAND.

THE FRUIT GARDEN.

ANNULAR INCISION OF THE VINE.

IT is curious that a cultural item that is so largely practised in France with good results should never have become popular in this country. French gardeners have a good deal of faith in the *incision annulaire*, and hold that it improves the size of the berries, and also to some extent hastens the ripening of the Grapes. I was reminded of it by seeing at the Royal Horticultural Society's exhibition of fruit recently some samples of the instrument with which the annular incision is made. They were shown by de Luzy frères, 99, Lilford Road, Camberwell, S.E. Of course, the outer tissue can be removed with a knife, but it is more effectually and safely accomplished by the instrument made specially for the purpose, as this can be regulated according to the size of the shoot to be operated upon.

It is a very simple matter; a ring of the outer tissue is removed *below* the bunch. The reason this operation has the effect of increasing the size of the berries and hastening their ripening is because the return of the sap is stopped. The elaborated sap descends by means of an outer layer of tissue, and therefore, when this is removed by the annular incision, it can descend no farther.

The sap thus remains in the tissue immediately around the bunch, and so helps its development more than would otherwise be possible. This is the principle that underlies the working of the instrument, and Continental gardeners maintain that it is a true theory because of its success when practically applied.

All gardeners know that it is usual to cut or pinch off the end of the shoot bearing a bunch of Grapes at a distance of two joints beyond the bunch, with the object in view of assisting the development of the fruit by restricting the energies of the Vine and directing them towards the bunch of Grapes. This is done in every garden, and, undoubtedly, does influence, in the right direction, the size of the berries. The principle of annular incision is practically the same. Instead of arresting the flow of sap above, you arrest it below the bunch. I have heard English Grape growers profess disbelief in the method of annular incision, but I cannot say that I have known of any who have given it a fair trial. If there are any English gardens where this is practised I am sure it would be most interesting to have the opinions of the Vine growers. When in conversation with a friend, an English gardener living in Germany, I was told of the splendid results he had seen where annular incision was practised. I hope shortly to be able to send you some notes upon this subject from him. Annular incision has long been in vogue on the Continent, but



A SEEDLING DAFFODIL (BAYLOR HARTLAND).

(Natural size of flower, 5 inches across.)

so far as I know it has never been given a fair trial in this country by fruit growers. They may be missing a very good thing, and on this supposition I think it would be both of interest and value to hear what Grape growers have to say on the subject. P. H.

OVERCROPPED FRUIT TREES.

AN exceptionally heavy crop of fruit undoubtedly induces exhaustion in the overloaded trees, which

may restrict their development and spoil the prospect of future crops. Apple and Pear trees are the chief victims; their fruit-buds are formed upon wood of the second and third year, while a branch of one year is sufficient for the Peach and the Apricot, and the Grape is content with the green growth of the current year. Let us, for the present, consider the Apple and the Pear tree, which are the principal fruit trees in our orchards. We will briefly consider, first, what should be done to the soil from which the roots of the trees draw their nourishment; and, secondly, what should be done to the branches which bear the fruit.

The soil, as we have just said, provides the nutriment for the roots; then let us improve this soil—its nature, dry or wet, hot or cold, will guide us in our efforts to improve it. Generally speaking, composts ready at hand, containing different non-fermenting nutritive elements, are easily made fit for any soil. Without predetermining their particular purpose, composts of turf, river and pond cleanings, night soil, house refuse, &c., mixed with vegetable mould and farmyard manure, if possible sprinkled with some chemical fertiliser such as phosphates and potassium, can be prepared beforehand; this will serve for general purposes, but when the soil is dry or light, besides the above introduce crushed bones and horn, rags, broken up turf, and old cow manure, while cold soils require road sweepings, wood and coal ash, sand, horse manure mixed with straw, &c. In autumn or in winter, until March before the rising of the sap, the soil above the roots of the tree to be treated should be removed (the removal being more or less extensive, according to the age of the tree and the spread of its roots), and the prepared compost put in its place. Its effect will be more lasting if it is mixed as it is filled in with good garden soil. It is wise to allow for the sinking of the soil and to make up for it by a further supply of good rich compost. Do not forget to mulch with stable litter, and to give abundant water in cases of drought.

If the branches are exhausted strengthen them by reducing their extent. The reduction should be in proportion to the age of the tree, its vigour, the size and form of its branches, and the abundance of fruit it has produced. If the operation was not begun at the fall of the leaf, when the sap ceased to flow, there is no time to lose. The general aspect and appearance of the tree should be preserved; it will be sufficient if enough is taken off to cause the tree to put forth fresh shoots, which two or three years after will bear fruit. It is the tree of reasonable size which does not over-crowd and have alternating years of barrenness. Clean the bark, scrape off moss and lichen, destroy parasites, and wash the stems and branches with a solution of sulphate of iron.

—CHARLES BALTET, in *Bulletin d'Arboriculture*.

VALUE OF WEATHER STUDY.

WITH the gardener, as with the farmer, the prevailing meteorological conditions are matters of immense importance. A wet or a dry spell, a frost or a hailstorm, to mention only a few possibilities, any one of these may be disastrous in its effects on the occupants of the garden. There is an old saying that it is of no use meeting trouble half-way, but it is certain that the horticulturist must meet his weather difficulties more than half-way. It is necessary that he should be so familiar with the various natural signs that he will be able to forestall, at any rate in a measure, the coming of bad weather, and thus by careful preparation minimise the

evil effects on his plants. The value of weather study to the gardener is, however, not generally recognised to the extent which it should be, and it is with the hope of stirring up a little more interest in the subject that the following lines are penned. Some of the most useful items of weather lore may be learned by the most ordinary observation. While not underrating the great assistance the student may derive from the various meteorological instruments, it is always well to remember that these are merely mechanical contrivances recording the prevalent state of the atmosphere, &c., as far as they are affected. The barometer is simply an arrangement of mercury in a glass tube, partially exposed to the air in such a manner as to respond to the pressure of the atmosphere. The fall of the glass may and often does portend rain, but in essence it shows nothing more than that, owing to the amount of moisture in suspension, the air is lighter than usual. What is of far more practical value to the gardener than the close study of instruments is the watching of the meteorological changes as they are hourly unrolled before his eyes.

It will soon be borne in upon the student that the science of meteorology is not an exact one. Indeed, at first glance the variety of weather conditions experienced in this country in a year is so great that, apart from the rough divisions of the seasons, there appears to be little in the way of an ordered sequence. Nevertheless, from out of this seemingly hopeless tangle it is possible to recognise some sort of order, for although no definite principles can be laid down, yet certain types of weather, perhaps as often as nine times out of ten, occur at the same period. As an instance, the May frosts, which the newspapers annually write of as "a new feature of our astonishing climate," are an almost invariable experience. Again, during the first fortnight in February, it very commonly happens that we have a spell of wintry weather, accompanied by a more or less heavy fall of snow. It is not always so, but the theory held good in the years 1900, 1901, and 1902. In the two following years the wintry conditions were not experienced to the same marked degree. It is said that the phases of the moon have little or no effect upon our weather. Yet for some reason or other the extraordinary clearness of the nights is often very noticeable between the first and the last quarter of the moon. This fact is of great interest to the gardener, for the cloudless sky, permitting of great heat radiation from the earth's surface, will, except in summer, almost certainly result in a frost. There is no doubt that sunset and sunrise are, meteorologically speaking, the two crucial moments of the twenty-four hours. It is not without reason that so many of the old weather saws bear on the appearance of the sky at dawn or dusk. Often with the rising of the sun the clouds break and the rain ceases, while often as the sun drops below the horizon the boisterous wind falls into a calm. At these times some very definite signs of forthcoming weather may often be observed. Profuse dew on the grass at sunrise is a very trustworthy sign of a fine day. Out of 239 observations, a fine twenty-four hours succeeded in 196 instances and rain in only forty-three. At sunset a heavy shower of rain will very likely be followed by a cold and probably frosty night. In very warm weather the presence of clouds at this time of day, even though they may be small and few in

number, is a sure sign of approaching thunder.

Animals and birds are useful to the observer, in that their movements often have a direct bearing on coming weather. Perhaps of all forms of animal life none is so reliable as the bat. There is scarcely a better sign of fine weather than the flying of these little creatures in the evening. Out of a record of sixty-one observations, forty-five times were followed by a completely fine twenty-four hours, more or less rain occurring in only sixteen. The congregation of small birds in the winter time often takes place just before the advent of severe weather. Anywhere within a few miles of the coast the various species of gull are always interesting to observe. At the approach of stormy weather these birds will fly in companies for some distance inland; on the other hand, if the weather promises to be fair, the gulls go out a long way seawards. It is well to bear in mind that, as a great meteorologist has said, "the weather has a decided tendency to preserve its character." A certain type of weather is likely to become established by its very continuance. Thus if the meteorological conditions have been fair for fourteen days, the chances are quite five to one that the fifteenth day will be fine. This does not mean that every week the possibility of having any more rain at all lessens, but merely that the chance is not so great of its coming quickly. It is not possible in a short article to throw out more than a few hints which may be of some small service to the beginner in weather study. The subject is very fascinating, and one in which there is infinite scope. The science is little more than in its infancy, and each honest observer is likely to add something of value to our existing store of knowledge. In this connexion one would wish to insist on the importance of keeping an accurate daily record of observations. The trouble entailed in keeping a weather note-book is inconsiderable in comparison with the benefits which will certainly accrue to the observer himself, to say nothing of the possibility of shedding light on one or another of the many perplexing problems with which we are confronted.

Reading.

S. L. BASTIN.

TREES AND SHRUBS.

KERRIA JAPONICA (JEW'S MALLOW).

THIS lovely Japanese flowering shrub is an old favourite, having been cultivated in this country for over 100 years; but, unfortunately, it is seldom planted in a position where it can be seen to full advantage. The Kerria is commonly found growing against a wall, but is quite hardy enough for an open border, except in very cold districts. Here it is grown on the back part of herbaceous borders, among other tall-growing plants. Trained in pillar fashion it is very beautiful, when every spray is covered with the yellow rosette-like flowers. The foliage is also a distinct and rather uncommon shade of green, which makes it very noticeable. When the leaves are shed late in autumn its branches take on a deep green, glossy hue, imparting a certain amount of attractiveness to it even in winter. On a herbaceous border the Kerria requires but

little attention, its strongest branches are tied (not too closely) to the pillar, the weakest are cut out, and the remaining branches left to grow in as natural a manner as possible. The *Kerria* is easily propagated from suckers, which come up in numbers every year, but are removed to keep the plant shapely; these suckers make excellent plants for forcing. I have cut sprays quite 4 feet long, and very handsome they look when arranged in tall glasses. The *Kerria* is not fastidious as to soil, having done equally well with me in a bleak part of Yorkshire and here under more propitious conditions. On the borders, where it was planted four years ago, the *Kerria* has attained a height of 7 feet.

Kirkcudbright. J. JEFFREY.

A VARIEGATED SYCAMORE.

(*ACER PSEUDO-PLATANUS* VAR. *BRILLIANTISSIMUM*.)

THERE are several variegated forms of the Sycamore, but none of them has the colouring of this variety, which is appropriately named *brilliantissimum*. During the latter part of April and throughout May the leaves are of a bright brownish red or terra-cotta tint, much resembling a good coloured form of *Azalea mollis*. Towards the end of May the colour begins to change through a brownish yellow tint to a pale green, which continues throughout the remainder of the year. The leaves are of the same shape as those of the Sycamore, but only about half the size. The plant is of a close compact growth, rendering it a suitable subject for small gardens. It can either be budded standard-high on the Sycamore to form a round-headed tree, or worked low down to form a small bush.

Baqqshot, Surrey. J. CLARK.

NEW AND RARE PLANTS.

MECONOPSIS PUNICEA.

IT is only a few weeks since the Messrs. James Veitch exhibited the beautiful new yellow Poppy *Meconopsis integrifolia*, which was illustrated in THE GARDEN of May 13. On the 9th inst. they sent to the Royal Horticultural Society's meeting another newly-introduced species of *Meconopsis* from Western China. It is not of such striking appearance as the yellow one, but it is very handsome nevertheless. The plant shown bore a solitary drooping flower of crimson colour on a stem about 18 inches high. The general resemblance of the flower to a *Sarracenia* was commented upon. A first-class certificate was granted to it. The plants introduced from Western China and Tibet by Mr. E. H. Wilson for Messrs. James Veitch and Sons, Limited, are causing a great deal of interest in the plant world. Two new *Primulas*, newly introduced from China, were also exhibited by Messrs. Veitch.

COLOURED PLATE.

PLATE 1275.

CARNATIONS FOR POTS.

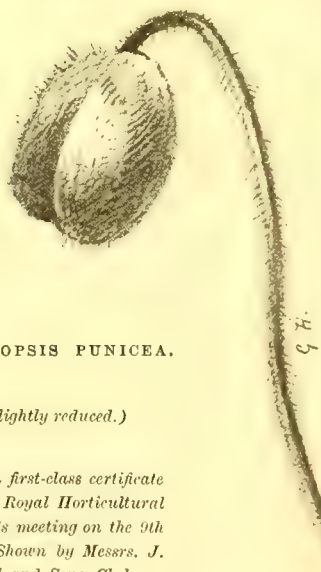
WE have many useful varieties of English origin which are still worthy of attention, but those from America have taken the lead during the last few years. The first of the American varieties which were introduced found but little favour, and when

best is *Enchantress*, which seems to flower well all the year through, and the large flowers, which are of a delicate shade of blush pink, are much appreciated. I may here mention that one grower renamed this calling it *Fascination*, but has since admitted its identity. *Fair Maid* is a fine variety of a deeper shade of pink, and *Floriana*, of a similar shade, is also most desirable. In *Fiancée*, which is being introduced this season, we are promised a still further improvement in this shade of colour.

Among scarlet varieties we have a good deal of rivalry. William Robinson, raised by the writer of these notes some years ago, is still a favourite, and is grown extensively. It may be mentioned that this, like many others, is inclined to vary, but from selected stock it is very bright in colour and of good form. Among newer varieties we have *General Kuroki*, from Messrs. Cutbush and Sons. This is similar in habit to the American varieties, having long stems and a good calyx. *Elizabeth*, another new English variety which was raised by a private grower and is offered by Messrs. Paul and Son of Cheshunt, is a fine scarlet *Carnation*. The American varieties *Adonis* and *Flamingo* are also good.

Of crimson varieties the best are *The President* and *Harlowarden*, both of American origin. There are several others almost as beautiful. The first of this colour from America, *General Maceo*, is still worth attention, and *Harry Fenn* is another. Of English varieties I find some growers still keep to selected stock of *Mrs. A. Hemsley*, but *Countess of Warwick* is of

dwarfer habit and very free. This is a seedling from *Winter Cheer*, and differs very little from it except in colour. *Prince of Wales* is another of a similar type. Among whites we now have some very fine varieties. *Lady Bountiful*, which recently received an award of merit from the Royal Horticultural Society, is very large, of perfect form, with



MECONOPSIS PUNICEA.

(Slightly reduced.)

Given a first-class certificate at the Royal Horticultural Society's meeting on the 9th inst. Shown by Messrs. J. Veitch and Sons, Chelsea.

Mrs. T. W. Lawson was first grown the verdict was rather against it. However, after getting properly established it gained in favour, and is now regarded as one of the best varieties we have for winter flowering, and the many other varieties which have followed are quite as useful. One of the

large fringed petals; this is from America. *The Belle* and *Lilian Pond* are other good sorts from the same source, and *Mrs. S. J. Brooks* is a fine white. Of other English-raised varieties *Leander*, salmon rose, with large petals, good form, and long stems, is a fine sort; but this does not appear to



TREE CARNATIONS ENCHANTRESS

Enchantress, Mrs T.W. Lawson and William Robinson

flower well until the spring. Coronation is a fine rose-pink variety, with the habit of the American varieties; Fascinator, a deep shade of bluish pink. These have been well shown by Messrs. H. Low and Co., who are the raisers. Several English growers are now working on the American varieties. From Messrs. G. Boyes and Co., Leicester, we have Dr. W. G. Grace, a fine crimson-scarlet, with large fringed flowers; Lady Wright, white, suffused with pink; Lady Carlisle, a good pink; and several others. Of older varieties that are still extensively grown Mme. Therese Franco (syn. Mrs. Leopold de Rothschild), Winter Cheer, Uriah Pike, and we still see some good blooms of the old favourite Miss Joliffe. For early spring flowering Duchess of Fife is extensively grown.

In growing Carnations for winter flowering it is most essential to start with strong, healthy stock, and it must be remembered that they cannot be forced into flower. The flowering period may be regulated by propagating at various times, and also by stopping. For the general batch to flower the following autumn and winter the cuttings should be put in during January and February. When these are stopped during April and May they will come in about the right time, or some which start away freely may be stopped a little later. The best cuttings are the short side shoots taken off close to the stem. To root them successfully they must have a close, cool surface and a good bottom-heat, and it is important to take them off and put them in without having a chance of getting withered, and care should be taken that the plants from which the cuttings are taken are not dry at the time they are taken. It is best to take them early in the morning, or, if done in the daytime, they should be put into a pail of water. I have always used loam, peat, and sand in equal parts for rooting the cuttings in. They should be removed from the close frame as soon as rooted, and, when they have been hardened off a little, they should be potted singly into 3-inch pots, and they will not be long before they will be ready for 4½-inch pots. Early in August they may require another shift. The potting compost should consist chiefly of good fibrous loam and some well-rotted manure, to which may be added some soot before putting it with the loam. Bone-meal may also be added. Good drainage should be given and the plants potted firmly. During the summer they will do better if placed in the open where they are fully exposed, while under glass plenty of air should be given. Watering must be carefully attended to at all times. The most critical time is after they are taken indoors in the autumn. When allowed to get too dry while in bud the flowers never open well.

When first taken in they will miss the moisture from the dew, and the syringe may be used in the morning in bright weather. During the winter fire-heat will be necessary, but in dull weather only sufficient should be given to keep the atmosphere dry. In frosty weather, if the sun is bright, there will not be much danger of too much heat, but air should always be given. Sunlight is the most important factor in developing blooms, and, as before stated, the Carnation cannot be forced into flower, and to attempt to do so would only induce weakly growth. I may add that, where large quantities are grown, the American system of planting out on

benches is worth trying. I have seen it done most successfully. More room is given for the roots to spread, and there is not so much danger of suffering from extremes of drought or wet. With regard to insect pests, preventives are better than cures. Fumigating should be done as soon as the plants are housed, while outside frequent syringing with clear soot water is excellent. A good dusting over with sulphur and lime will keep mildew and rust in check. Success is attained more from careful and regular attention than great skill. The coloured drawing was made from flowers grown by Messrs. Blackmore and Langdon, Twerton Hill Nursery, Bath.

A. HEMSLEY.

THE WHITE LILY.

THE white Lily represented in the accompanying illustration, from a photograph kindly sent by Miss Best of Andover, shows a very good form of it, the white



WHITE LILY IN A HAMPSHIRE GARDEN.

petals being broad and without that starry look which is characteristic of the poor varieties. This beautiful Lily (*Lilium candidum*) is approaching its flowering stage, and is the glory of many a cottage garden in the early summer months. Unfortunately, when in its full beauty it sometimes succumbs to disease, but do the writers on this old Lily refer to the blight, mildew, or fungus that attacks the foliage and afterwards too often cripples stalk and flower-spike, or to some disease in the bulb itself? If to the former of these, I am quite convinced that no attempt to deal permanently with the disease in the way of shallow planting or annual lifting is of any use. I knew a garden where this white Lily was grown extensively. A special point was made of both these cultural conditions, and being present on one occasion at the annual lifting I could vouch for the splendid condition of the bulbs. Yet the very next season the foliage and flower-spikes were completely destroyed, and as the same

or nearly the same, disastrous results happened yet again the following season, the culture of this particular bulb was abandoned altogether. I should not be inclined to follow this example unless it was absolutely necessary, having a great liking for the grand old Lily, and for two or three seasons I have been able, thanks to several dustings with anti-fungoid powder, to save the flowers, although the foliage has been bad quite early in the season. Any preparation which applied to the foliage would keep the same healthy and vigorous throughout the summer would be a great boon. The disease not only renders it unsightly, but such an early crippling not only reduces the size of the flowers, but seems to dwarf and contract the spike. It is detrimental to its full development. As I have said, I save the flowers, but they are not so fine as they should be considering the early vigour of the plants either collectively in the spike or individually. Given a fairly suitable soil, I should never think of disturbing this Lily.

Our clumps have been in their present quarters ten years, and there is no sign of deterioration; indeed, the flower-spikes run up nearly 6 feet high in spite of disease. So far then as this particular disease is concerned, it is due only to atmospheric influences, and should be combated by exterior appliances. Soil and situation may have something to do with an aggravated form of the disease, but they are certainly not responsible for its first attacks. I think, also, late frosts are harmful.

E. R.

THE ROSE GARDEN.

ROSE THE WALLFLOWER.

A BEAUTIFUL and effective garden Rose is The Wallflower, its habit of flowering down to the ground enabling the grower to produce some interesting effects in the garden. It may be grown quite as well in bush form, planting it singly in order that it may develop into a large specimen; and it answers well when used to form a wall of Roses to screen more delicate varieties. The colour is rosy lake crimson, a tint that does not appeal to one so much as a rich crimson or scarlet. The flowers are considerably larger than those of Crimson Rambler, one of its parents, and they are produced in fine bunches. It is a strange blending of *Beauté Inconstante*, the beautifully coloured Tea Rose, and *Crimson Rambler* that has produced this Rose, and it looks as though some remarkable results would arise from crossing *Crimson Rambler* with other distinct Roses.

ROSE CLIMBING CECILE BRUNNER.

THIS dwarf and charming little Rose is known to most Rose growers, but the climbing sport is perhaps not so generally known. This climber, which is not so rampant as some climbing sports, such as those from *Devoniensis*, *Kaiserin Augusta Victoria*, &c., grows sufficiently fast to enable one to cover a good deal of space in a few years. It is, however, mainly as an autumn-blooming climber that I would commend it to the notice of readers of THE GARDEN. These autumn-flowering climbers are so much appreciated that we cannot afford to allow one variety of merit to escape notice. I think the variety under notice would be most suitable against a south or west wall or fence, as in this position it would yield in quantity the miniature flowers that are so highly valued. The perfect shape and dainty colouring make this variety very popular. P.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

PLANTS FOR ROOMS.—The list of suitable foliage plants would include Aspidistras, Palms, Indiarubbers, Aralia Sieboldi, Cyperus alternifolius (sometimes called the Umbrella Plant), the Blue Gum (Eucalyptus, or Fever Tree), the green-leaved Dracæna, (or Dragon Tree). All the above, in careful hands, may be successfully grown in rooms where the frost is kept out in winter.

A Suitable Compost.—I am grouping these plants together, as the treatment will be similar. The repotting should be done in spring, in April, as that is the time when new growth is made and there is renewed activity in root action. Do not over-pot. When repotting becomes necessary, a shift that will permit of a finger being thrust between the pot and the ball will generally suffice. The best compost is good loam two-thirds and leaf-mould one-third.

Firm Potting is necessary, and sand enough to keep the soil open and sweet. The drainage must be ample and properly placed to secure a free passage for surplus water, one large piece of crock over the hole, then a layer of smaller pieces, finishing off with a layer of small bits about the size of Peas, the whole to be from 1½ inches to 2 inches in depth in the larger-sized pots. Of course the pots must be clean, and in potting use a potting-stick to ram the soil in with reasonable firmness.

Watering—Giving Stimulants.—Mistakes are often made in giving too much or too little water. When a plant is really dry (and it should not be watered till it is approaching this condition) take it to the sink and give a thorough soaking by immersing it in a pail of chilled water, and leave it in the water till the air-bubbles cease to rise. Let it drain, and then take it back to the room. Once a week watering in this thorough manner will suffice in winter.

Watering in Summer must be regulated by the condition of temperature and the activity of the roots. Stimulants should never be given to any plant till the roots are abundant and hungry. Palms, Aspidistras, and Rubbers may be kept in health without repotting for some time by a weakly dose of sulphate of ammonia or Clay's Fertilizer, Bull's Plant Food, or any other good manure. The usual dose is half an ounce to a gallon of water once a week.

Using the Sponge.—This is most important. What ablution is to the human body the sponge bath is to the living plant. And the oftener it takes place within reason the better. All foliage plants, including Ferns, must not be exposed to hot sunshine, neither should they be placed outside on a windy day. The most useful Ferns will include all the best known of the Pteris family, such as *P. tremula*, *cristica major*, *cristata*, and *albo-lineata*. *Cyrtomium falcatum* and *Asplenium bulbiferum* are good Ferns also.

The Snake's Head.—The common Fritillary is seen at its best when planted in the grass or in the border. It is quite easily grown and thrives well in ordinary garden soil. Every three or four years the bulbs should be lifted and replanted in fresh soil. Lifting is best done in the autumn. The stock may be readily increased by means of offsets of the old bulbs. It is well worth planting for spring effect.

Some Perennial Larkspurs.—These are very striking and beautiful hardy border plants, and may be increased either by division or seeds. Seedlings will for the most part flower the second season if sown early in spring. Sow thinly in a box or boxes in a frame, and prick out when large enough 6 inches apart, and move to flowering position in April. They will grow anywhere if the soil is trenched and manured. There is considerable variety in colour, and there are both single and double varieties.

A Few Good Varieties.—Singles: Cambridge Blue, Hendersoni, Versicolor, Coronet, *Magnificum lilacinum*, Celestial, and *formosum*. The last is a good variety to form a mass in the border, and when the first lot of flowers fade, if the stems are cut down close a second crop will be obtained. To a certain extent the whole of the Delphiniums will do this, but *formosum* has more of the perpetual habit than most have. Doubles: *Grandiflorum fl.-pl.* (this is an old kind but a good border plant), Prince of Wales, Red Leopold, General Ulrich, Delight, and Victor Lemoine.

Wireworms and How to Destroy Them (*Athous and Agriotes, Several Species*).—These pests are the grubs of beetles belonging to the family Elateridæ. There are a considerable number of species, and they are commonly known as click or skipback beetles on account of the power they possess of springing away with a click when disturbed. The wireworms attack a great variety of plants, and are especially fond of Carnations and other nearly-allied genera. Insecticides have little or no effect on them, so that trapping must be resorted to. The best traps are slices of Carrot, Mangold, Potato, Turnip, or Rape-cake, buried about 1 inch below the surface of the ground. Each slice should have a small wooden skewer stuck into it, so that it may be the more easily found. Examine the traps every morning, and it is often said that wireworms are so fond of Rape-cake that they will eat it until they burst; but this is pure fiction, as they have been fed only on cake for some weeks, and have thriven wonderfully well on it. Strewing the ground, however, with small pieces of cake will often draw the wireworms away from a crop. Most birds are, fortunately, very fond of them. These grubs vary somewhat in size according to the kind, but

the largest species is hardly more than three-quarters of an inch in length and one-eighth of an inch in diameter. They are of a yellowish colour, with brown heads and legs. The latter are short and placed near the head. The click

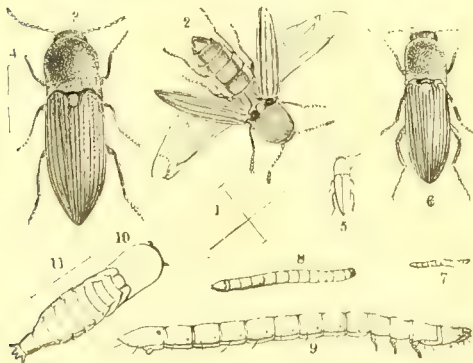


COMMON SNAKE'S-HEAD. (Reduced.)

beetles are long, narrow insects of a dull brown, grey, or yellowish brown colour, as a rule, but some are more brightly coloured.

A Good Scarlet Delphinium Suitable for Rockery.—*D. nudicaule* is distinct from most of the others, being dwarf in habit, seldom growing more than 2 feet to 2½ feet in height, and the flowers are vivid scarlet. Should have good soil in a well-drained site on the rockery. Forms a brilliant group, and may easily be raised from seeds. If well cared for most of the seedlings will bloom the second season.

How to Plant on Banks.—It is often a difficult matter to plant steep banks successfully, especially if the soil is poor. It is almost impossible to get grass to grow well unless one is able to spend a good deal of time and labour on it, so something else must be used. Broom and Gorse and Heather are good substitutes. However, it is not of these that we wish to write, but of another method altogether that we saw put into practice recently. Instead of planting on the steep slope the bank was made into a series of terraces, and it was then an easy matter to plant on the flat portions. The terraces certainly look unsightly at first, but when the plants grow, as they quickly do, the spaces soon get filled up, and in time a fine bank of greenery results. The soil was well broken up as the work proceeded, and so allowed of manure being intermixed. It is also an easy matter to top-dress the plants, as



WIREWORMS.

1 and 2, *Agriotes lineatus*; 3 and 4, *A. obscurus*; 5 and 6, *A. sputator*; 7 and 8, Wireworms (natural size); 9, Wireworm (magnified); 10 and 11, *Chrysalis*.

they are on level ground. They can also be well watered, and one has the satisfaction of knowing that the water reaches the roots, which is not the case when they are on a steep bank. A far greater variety of plants can be grown when this method of culture is adopted, so those whose dry, poor banks are an eyesore may care to try it.

Just a Few Words about Flowering Plants.—To mention a few indispensable things, Myrtles, *Coronilla glauca* and its variegated variety, *Gonista fragrans*, Begonias, scented Geraniums, Oakleaf and other Pelargoniums in variety, but specially the Ivy-leaved section, which may be grown in various ways, and Campanulas, including *garganica* and *isophylla*. These are good for baskets or placing on a bracket in the window. For winter flowering there are bulbs, especially Freesias, Tulips, Narcissi, Hyacinths, &c., but the last-named are not so popular as they were. These heavily scented flowers are not so much in demand, and the same may be said of the heavily scented Lilies; but the Trumpet Lilies and the lancifolium section are not so strong, and may be grown in the room, as may also Lily of the Valley. Where there is a cold frame for the plants in summer Cyclamens, Primulas, and Cinerarias may be sown now and grown on in the cold frame till the autumn.

Making Celery Trenches.—These should be made as soon as land is vacant, and may follow any other crop, as the special preparation given renders unnecessary any considerations of rotation. For an early crop the trenches should be 15 inches wide and 1 foot deep, or the depth of the spade. The manure or compost should be placed in the trench liberally, and mixed with the soil in the trench, and some of the surface soil placed on the top, so that the whole may become well blended. If two rows of Celery are placed in one trench the width should be increased to 18 inches, and the width between the rows proportionally increased. For late crops the trenches need not be quite so deep, and for very late Celery I have often planted on the surface, or at least in only very shallow trenches. To obtain large quantities of Celery for late stewing I have adopted the bed system, manuring the ground with short compost, planted near the surface, and earthed up with sifted ashes and burnt earth. It invariably lifted out in a sweet clean condition late in spring.

Feeding Sweet Peas.—Sweet Peas are fond of good soil, and unless they are well supplied with nourishment the best results will not be obtained. It is astonishing what a much finer yield can be had from plants which are well looked after than from those indifferently attended to. If the seeds have been sown in good soil the plants will need no manure for some time to come, but as soon as they show signs of flowering they must be given manure in some form. Diluted liquid farmyard manure is as good as anything, but those with small gardens are often unable to obtain it. Guano is conveniently applied, and if it is of good quality is satisfactory. Clay's Fertilizer is also suitable. It is important to pick off all dead flowers so that seeds do not form. If this is done, and the plants are well manured, they will flower freely and late.

Sweet Peas in Tubs.—If, as was recommended in these notes some time ago, Sweet Pea seeds were sown in tubs the seedlings will now be 3 inches or 4 inches high, and will need support. It is a good plan first to put in some twiggy sticks about 12 inches high, so that the young plants may have a good start. Ordinary Pea sticks are often bare of twigs at the bottom, and the tiny plants have nothing to twine round but thick bare stems. They are unable to cling to these properly, and consequently some of them fall down and are spoilt. When they have taken hold of the small twiggy shoots the larger sticks may be put in.

GARDENING OF THE WEEK.

FLOWER GARDEN.

THE ROCK GARDEN now needs attention. Clear off any annual spring flowers which are now over; cut down spent flower-stems and dead leaves of perennial alpine and bulbs; weed, fork, and apply manure to all vacant spaces, replenishing with fresh soil if necessary, and plant with suitable plants for the summer and autumn, selecting for the most part those of dwarf and neat habit interesting and pretty either in flower or foliage, or both.

MESEMBRYANTHEMUM SPECTABILE.—I would like to draw special attention to this plant, and wish to recommend it chiefly for rock and wall gardening and for any dry, parched, and sunny spot. It is about the best plant I know of for such positions, unequalled for brightness during the autumn months, and a lovely colour. In such situations and in mild localities it is hardy, or very nearly so, but for safety it is advisable to lift a stock of old plants, and also insert cuttings, for wintering before severe frosts set in, and propagate the main stock by cuttings in the spring, putting them in boxes in sharp gritty soil, keeping both cuttings and soil dry until rooting. It is not a new plant, and I do not boom it as such, but it is so seldom seen employed for this purpose and so beautiful that I feel justified in emphasising its more extended use in this direction.

IONOPSISIDUM ACAULE, an annual of undoubted merit for the nooks, crevices, and shallow spaces on rockeries, is, I fear, somewhat neglected. Sow now where intended to bloom. I raise a few seedlings rather early in heat each year, and plant out when hardened. These come in bloom very early and produce seed in abundance, resulting in a crop of self-sown seedlings, which flower freely during the autumn, more sparsely through the winter, and profusely in early spring. Damp and boggy places are suitable for colonies of *Primula japonica*, &c.; they revel in ample moisture. Many deciduous

SPRING-FLOWERING SHRUBS will require pruning as they pass out of bloom. This consists, in most cases, in cutting out the spent flowering shoots, thereby encouraging strong young growths for the next year's blossoming. A few evergreen flowering shrubs, such as some of the Berberis, are also greatly benefited by the same treatment. Persevere in gradually and carefully hardening off the various delicate

BEDDING PLANTS.—The weather has been changeable and treacherous of late, necessitating much care and watchfulness. Soft-wooded, quick-growing plants may still be propagated if the stock is short, as it will probably be towards the end of June before the whole of the planting is completed, and allow none of the earlier-rooted plants to become pot-bound; it is far better to give them a small shift, if only for a fortnight, than that the roots should be cramped for that time, resulting in a serious check to growth.

DAHLIAS that were left to winter in the open ground have been pushing up strongly for some time—earlier than usual this year. They must be protected in case of frost.

The Gardens, Tan-y-bwlch, North Wales. J. ROBERTS.

INDOOR GARDEN.

ADMIT air night and day to the conservatory and greenhouse, or the flowering plants will not last long during the hot weather. Constant changing and rearranging of the plants is necessary. A considerable amount of shading being given, it has a tendency to draw the plants. Staking and tying must be attended to. Damp the staging and floor two or three times a day. Select the coolest position in the house for the herbaceous Calceolarias. Pick off damp leaves and the old flowers as they wither.

STOVE HOUSE.—Plants potted in March will by this time be well rooted in the new soil. The majority of both flowering and foliage plants will benefit by an occasional dose of liquid manure. Insect pests increase rapidly in warm houses, necessitating constant attention. Syringe at intervals with insecticide. Thin out the shoots of Bougainvilleas, and train and tie the growths of Allamandas. Give strong-growing Palms manure water.

DOUBLE WHITE PRIMULAS.—The old plants, cleaned and top-dressed some two months ago, are ready for dividing. Knock off the old soil and cut up the plants into single crowns. Leave as much root as possible attached to each crown. Pot into 3-inch pots, using a light sandy soil containing a little peat. Place in a propagating frame with a gentle bottom-heat. Keep shaded from the sun, and syringe frequently. Very little water at the root will be necessary for some time. Pinch out any flower-buds that appear.

BOUYARDIAS.—Pot on and encourage the growth of the young plants. If they are to be planted out transfer to cold frames and harden off gradually. Continue to pinch out the points of the young shoots of those for winter flowering till July. Syringe several times daily when the weather is warm. Avoid overcrowding, and encourage short-jointed sturdy growth.

CHRYSANTHEMUMS.—As the final potting is accomplished it should be safe to transfer them to the summer quarters. Attend carefully to the drainage of the pots. Secure each plant with a temporary stake, as if not very carefully handled the growths are apt to get broken during the potting and shifting. Syringe the plants morning and evening. Keep the ground round about the plants moist.

LILIUMS.—Place batches inside at intervals for succession, top-dress as necessary, and when full of roots feed liberally. Secure the taller plants to stakes. To keep a

few plants back for later flowering stand them against a house or wall with a northern aspect.

GENERAL REMARKS.—The large plants of *Campanula pyramidalis* are throwing up the flowering spikes. Stake firmly, and give copious supplies of manure water. *Torenia*s are growing freely. Pinch out the points of the shoots, and in about a week pot on the plants, three in a 6-inch pot, or singly into 5-inch. Grow for a time in an intermediate house. Pot on seedling *Gloxinias*, Begonias, and *Streptocarpus*. Encourage growth in a warm, moist house. As space becomes available in the pits and frames due to the removal of the bedding plants pot and transfer various plants into them from the greenhouse.

Royal Botanic Gardens, Kew.

A. OSBORN.

KITCHEN GARDEN.

FRENCH BEANS.—With the sudden changes of temperature we have experienced recently it becomes doubtful if former sowings of these tender vegetables will be worth anything. All vegetables yield best results when they receive no check in growth from the day they appear above the soil till they are ready for use. French Beans, being of a tender nature, seldom overcome a check; they may grow, but are never satisfactory. Should they assume a starved and unhealthy appearance, the best course is to pull them out, fork over the ground, and sow again. Whether this course is necessary or not, a good sowing should now be made on a plot of rich ground with exposure to sunshine, in which they revel. Let the drills be from 2 inches to 3 inches deep, and 2 feet apart. *Ne Plus Ultra* and *Canadian Wonder* are splendid summer varieties.

CAULIFLOWER.—Close attention must now be paid to young Cauliflower plants. Early plantations are apt to button, and, where this has taken place, they must be immediately replaced with young plants pricked out some time ago. If these are lifted with good balls of soil adhering to their roots and allowed sufficient water after planting, little or no check will be sustained. More seed should also be sown of *Veitch's Autumn Giant*. I make three sowings of this excellent Cauliflower every season, and find it a good way of prolonging the supply. The variety just mentioned is wonderfully free from clubbing, and is grown here on ground well limed for Potatoes the previous year. Under these conditions no trace of clubbing appears, and the crops are good.

BRUSSELS SPROUTS.—Plants from sowings made some time ago should now be ready for planting on permanent quarters. No vegetable responds more quickly to good cultivation than Brussels Sprouts, and none gives less return if the ground is poor. This must be considered when planting. If on good ground they should be from 2½ feet to 3 feet from row to row, and from 18 inches to 2 feet from plant to plant. Overcrowding is more injurious to Brussels Sprouts than any other vegetable. They require ample light and air when commencing to sprout, or the consequent size and quality will be poor. On poor ground they can be planted closer together.

LETTUCES.—Make a sowing of Lettuces every fortnight or so, and on ground where they may remain permanently, as transplantation is not desirable now. To prevent their becoming drawn and weakly, keep them free from weeds. Stir the surface of the ground occasionally with the Dutch hoe, and watering must not be neglected during dry weather. Keep them growing quickly, or they will be tough and insipid.

BROAD BEANS.—Another sowing of the *Green Windsor* variety should be made, as it is a good cropper at all seasons, and especially during autumn. Allow them plenty of room; 3 feet or 4 feet between the rows is not too much. This arrangement allows space for earthing up to keep them in an upright position during windy weather.

HERBS.—Those of the annual class should now be sown; Chervil, Borage, Sweet Basil, &c. More reliance can be placed in herbs sown now than those started at an earlier date. Sow in beds, make the mould fine, and do not bury the seed too deeply. Protect from birds by covering the beds with nets.

The Gardens, St. Mary's Isle, Kirkcudbright.

J. JEFFREY.

FRUIT GARDEN.

FIGS.—When the crop has been cleared from the earliest trees in pots they should be kept cool preparatory to being plunged in ashes outdoors. Give them plenty of water at the roots, and syringe the foliage morning and afternoon to keep them free from red spider. Succession trees which are swelling their fruit will require liberal supplies of water, especially if they are well established and growing in shallow restricted borders. Plenty of stimulants may be given to trees carrying heavy crops. The borders must be given a good surface dressing of well-fermented horse manure. Stop the shoots at the fourth or fifth leaf. Remove weakly shoots and suckers, unless the base of the tree is becoming bare, when a few of the best suckers may be laid in. If the trees are expected to produce a second crop they should be kept clean. Should red spider appear sponge the leaves with a weak solution of soft soap and sulphur. Outdoor trees are now growing, and some kind of covering should be at hand in case of frost. Disbud all surplus growths before they become too large, leaving only sufficient to furnish the tree with healthy fruit-bearing wood, so that sun and air can have free play among the branches. Up to date the rainfall here for this month has been practically nil, so that we have had recourse to watering trees on walls, also newly-planted trees in the open.

CUCUMBERS.—At this time of year Cucumbers are growing and fruiting rapidly. Unless they are properly attended to in the matter of thinning the growths, top-dressing, and feeding, the plants will be quickly exhausted.

If these little details are not seen to in time, success in this direction cannot be attained. Do not allow the plants to carry more fruits than are required for immediate use. They should also be kept clean. Red spider is a persistent enemy of the Cucumber, very destructive, and hard to dislodge when fairly established. If preventive measures are taken while the plants are young much trouble will be saved. An occasional syringing with soft-soapy water with a little sulphur added will keep it at bay. Top-dress frequently with loam and horse manure in equal proportions.

TOMATOES.—Plants in pots with four or five heads of flower set should be stopped. This will be found quite sufficient for them to carry if the quality of the fruit is to be of the best. If the pots can be placed on a mixture of loam and horse manure the roots will quickly enter it and derive much benefit. The beginning of June is a good time to sow seeds for late autumn supply. This is a valuable and inexpensive crop, as the plants may be grown outdoors till there is danger of early frosts, when they must be brought indoors. They will then have set several trusses of bloom, and will give a supply till the end of the year. E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

ORCHIDS.

CYMBIDIUMS.—*C. eburneum*, *C. lowianum*, *C. hookerianum*, *C. giganteum*, *C. tracyanum*, and the recently-introduced new species *C. Sanderi* and *C. Sanderi*, also the distinct hybrids *C. Lowio-eburneum* and *C. eburneum-lowianum*, are all first-class Orchids, and well deserve the best position in the coolest and shadiest part of the intermediate house, where they may remain the whole year round. Any of these plants that have become pot-bound may be repotted at the present time. In some collections *C. lowianum* and its variety *concolor* are now in bloom, but it should be repotted, if necessary, soon after the spikes are out. Cymbidiums, being strong-rooting plants, require rather larger pots than for most Orchids; therefore give them sufficient room to suffice for several seasons' growth. The pots should be about half filled with crocks for drainage, the compost consisting of equal parts of yellow turfy loam, rough fibrous peat, and chopped sphagnum, and in addition a small quantity of leaf-soil, coarse silver sand, and finely-broken crocks or bricks. Previous to potting well mix the soil, &c., together, and see that the crocks, &c., are well intermixed with the compost. Pot the plants moderately firm, and, instead of elevating them above the rim of the pot, keep the soil at least half an inch below it. This will ensure sufficient space to water the plants each time they become dry, for when rooted these Cymbidiums require abundant supplies of water all through the growing season. After root disturbance arrange the plants in their proper places, give them extra shade, and very moderate supplies of water should be afforded until each plant has become re-established, after which time the amount of water and light should be gradually increased. During the growing season the atmosphere around these plants should be moist; they do not appreciate dryness to any extent either at the root or in the air, as it will cause loss of foliage and favour the increase of insect pests. The above remarks are also applicable to such species as *C. longifolia*, *C. chlorantha*, *C. affine*, *C. Mastersii*, *C. ensifolia*, *C. elegans*, *C. madidum*, &c. *C. devonianum* produces its pendulous racemes from the base of the young growths; therefore it is best suspended either in baskets or shallow pans. *C. tigrinum* is a pretty dwarf-growing species, but seldom seen in a flourishing condition. It succeeds best at the warmest end of the cool house. The same temperature will also suit *C. devonianum*.

Such Orchids as *Masdevallia tovarensis*, *Lelia harpophylla*, *L. pumila* and its several varieties, *Miltonia vexillaria*, all *Masdevallias* of the *Chimera* section, and a few *Odontoglossums*, as *O. nevium*, *O. blandum*, *O. Kramerii*, &c., that have wintered in the intermediate house, may now be safely removed to the cool house for the summer months. Plants of

Odontoglossum grande are now commencing to grow, and as they have been kept quite dry for some considerable time the soil has become impoverished, therefore no time should be lost in providing them with fresh rooting material. They will grow and root freely in equal parts of peat, leaf-soil, and moss, surfacing the compost with chopped sphagnum, filling up to the rim of the pot. Place the plants in the intermediate house, and afford water with great care until the growths are well advanced. If too much water is given in the early stages of growth, the stout, fleshy roots are very liable to turn black and decay, and do not recommence to form fresh roots so readily as some of the smaller-rooting species. As the young breaks push up and the leaves expand, see that no water lodges in the centre of the growths, as they are easily rotted if it is allowed to remain there.

Burford Gardens, Dorking.

W. H. WHITE.

BOOKS.

Flora and Sylva for May is, as usual, replete with interesting articles and notes, and the two coloured plates are *Nerine Bowderi*, from a drawing by the well-known artist H. G. Moon, and *Pelargonium Lady Mary Fox*, which is quite reminiscent of the days long ago when the scented-leaved *Pelargoniums*, of which this is one of the varieties, were in the heyday of their popularity. Perhaps this beautiful coloured illustration, and

the excellent notes which accompany it, will do something towards bringing this interesting class into favour again. A very good article is "The Woodland Garden." How welcome are the following words: "Our native evergreens—*e.g.*, Holly, Box, and Yew—how much more beautiful and effective groups they make than the weedy trees which usually have possession. The common evergreen Barberry from North America is a beautiful covert shrub, with its foliage all through the winter and its fragrant and effective blooms in spring, but it should be held together in natural masses, and close enough to keep the ground clear. The too common way of having a lot of coarse Laurels, and clipping them down to one level, is stupid and ugly, because there are so many things that give a fine undergrowth without clipping. Take, for example, the large Partridge-berry (*Gaultheria Shallon*), of North America, as it may be seen at Coolhurst—what an excellent undergrowth it makes, and yet how little grown" (page 114). We wish Mr. Robinson would avoid as much as possible the use of one English name for two different plants. One always associates the Trumpet flower with *Bignonia*, but in this number it is applied to the *Incarvilleas*, which are described (page 132) as "the perennial Trumpet flowers." We have grown accustomed to the word *Incarvillea*, and prefer its popular use until some distinct and easily understood English name can be substituted. Mr. O'Brien's description of the *Nerines* is valuable, but we have only mentioned a few of the many excellent things in this beautiful monthly magazine.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

BLIGHT IN MELON HOUSE (C. C. D.).—We are sorry to say we cannot tell you how to prevent an attack of blight on Melons. Directly a leaf or two is formed the grower must examine the leaves once or twice a week for the appearance of the green fly, and if discovered they must be removed by a sponge dipped in tepid soap and water. Soap water will for a time make the flies disinclined to infest the leaves again. This should be persevered in until the plant has gained strength and attained the height of 7 inches or 8 inches, when no further attack need be feared for some time, provided that the grower gives heed to careful ventilation, watering, and syringing the plants copiously in warm weather. Green and black fly are the greatest enemies of the Melon, but sometimes it is also attacked by red spider and thrip. Should it unfortunately happen that any of these pests have laid hold of the plants in strong force, then resort must be had to fumigation by the XL All insecticides. Directions are given how to use these, but caution must be exercised against

using them too strong, as the Melon is easily injured in this way. Better fumigate twice with a weak solution than once with that which is too strong.

PEACH LEAVES DAMAGED (A. W. Ralph).—You say that you sprayed the trees before the buds opened and again since, and we believe it is in doing the latter that you have made the mistake. Spraying with Bordeaux mixture when the buds show the very first indication of swelling does good, as it destroys the disease spores. Two sprayings at intervals of ten days ought to suffice if well done. The leaf-buds should not be sprayed after they begin to expand, or the foliage will be destroyed or injured. The leaves sent have every appearance of having been scorched, and we think some of the mixture must have come into contact with them. The only thing we can advise is that you should keep the tree well watered and syringed, and shaded from the sun.

PEONIES DISEASED (Mrs. Firth).—I am sorry to say your Peonies are attacked by a fungus, the drooping disease of Peonies (*Botrytis pæoniæ*), a very destructive pest. Spraying with diluted Bordeaux mixture, or 1oz. of sulphide of potassium dissolved in 2½ gallons of water, when the disease first makes its appearance, is useful. Now the only thing to be done is to cut off the affected leaves and burn them, and then spray the plants with one of the above-mentioned mixtures. The surface soil should be removed, and fresh soil with a good admixture of lime put in its place. Green manure used as a dressing is likely to encourage the disease, as it forms a suitable material for the growth of this fungus, which unfortunately appears in more than one form, another form being that of small black masses known as *Sclerotia*, which may be found in the tissues of the plant, and when they decay the *Sclerotia* may be found in the soil. (See reply to "H. G. R.")—G. S. S.

TULIP LEAVES DISEASED (H. G. R.).—The Tulip leaves that you forwarded are attacked by the Tulip mould (*Sclerotinia parasitica*), a very destructive fungus, and one which exists in two perfectly different forms. Until this was recognised it consequently bore two different names. The form in which it is at present attacking your Tulips is known as *Botrytis*; later on small Lentil-shaped black bodies will appear in the bulbs. These are known as *Sclerotia*, from which the generic name of the fungus is taken. These may come in contact with the soil and contaminate other bulbs which may be planted in it. As soon as a bulb appears to be infested with this fungus it should be taken up and burnt; there is no remedy known at present. Other species belonging to the same genus attack Snowdrops, Onions, Lilies, and various herbaceous plants. (See reply to "Mrs. Firth.")—G. S. S.

INSECT PESTS IN CHRYSANTHEMUM SOIL (E. S.). The little white creatures in your Chrysanthemum pots are *Lipura ambulans*. I am afraid that they have not any English name; they are very nearly allied to the Springtails or Poduride, but they are not provided with any jumping apparatus. It is difficult to know what to suggest in the way of insecticides, as you do not want to check the growth of your plants or to injure them in any way. Whatever is used you must be certain that the soil is soaked with it right down to the bottom of the pots, to ensure which it would be best to stand them in a bucket of the insecticide for two or three hours. A strong solution of nitrate of soda, or common salt, or extract of quassia would probably kill them. You will know best which would be least likely to injure your plants. To make lime water add half a pound of freshly-burnt lime to a gallon of water; stir it well now and again until the water will not dissolve any more. If all is dissolved add more lime, then let it stand until quite clear, and pour off the clear portion for use.—G. S. S.

INJURY TO VINE SHOOTS (*Novice, Bangor*).—We think that some local reason must be the cause of the injury to your Vine shoots, as similar injury has frequently been caused by the young and tender shoots being too close to the glass on cold nights, or it may result from the hot gleams of morning sun shining on the shoots whilst they are wet with condensed moisture before air has been given in the morning. In any case, we think the injury is due to some local cause, and not to any constitutional disease, and hope as the shoots get firmer the Vines will suffer no further injury.

SEEDS FOR INDIA (*J. B.*).—You could hardly err in sending the following, and it is quite possible, in the hill district to which you refer, the majority will be a success: *St. Brigid Anemone*, *Incarvillea Delavayi*, *Primula rosea*, *P. cashmiriana*, *P. denticulata*, *P. japonica*, *Corydalis thalictrifolia*, *Coreopsis grandiflora*, *Chionodoxa Lucilæ*, *C. sardensis*, *Heuchera*, *Anemone sylvestris*, *A. alpina*, *Hyacinthus candicans*, *Papaver alpinum* in variety, *P. orientale*, any species of *Meconopsis*, including *M. integrifolia*, now flowering in England for the first time, *Nicotiana affinis*, *N. suaveolens*, *N. Sanderæ*, *Lupinus arboreus*, *Lobelia cardinalis*, any of the hybrid *Columbines*, as also *Corndflower*, *Chrysanthemum segetum grandiflorum*, &c. *Anemone blanda* is the Grecian Windflower, which in this country commences flowering in February; the Apennine Windflower is much later and much smaller too. If you particularly wish for seeds of the former your better plan will be to place an order with some good firm for what you require. If you cannot obtain seeds you will have no difficulty in obtaining the tubers in early autumn from any of the hardy plant dealers. These tubers would flower early in 1906, and in that year you could obtain seeds yourself. It is now rather late to apply the lawn sand; you might use it sparingly. We have no knowledge of the kind mentioned.

VINE SHOOTS FAILING (*Constant Reader, Yeovil*).—Your experience has been unfortunate. On the face of it, as per your letter, one would be inclined to say that the cause of failure was invested with some considerable mystery, the disease attacking one variety one year, another the next year, and so on. We can find no disease or insects on the shoots. We have experienced the same result on a limited scale, but with late varieties of Grapes only, such as *Alicante*, *Lady Downe's*, *Gros Colmar*, and *Alnwick Seedling*, and occasionally in *Muscats*; but *Black Hamburgh* never. In our case the matter was never very serious, as there were usually a fair proportion of good shoots left on the Vine to secure a crop, and we hope it is so with our correspondent. We have always attributed the cause to the previous year's growths being imperfectly ripened. In this case we have found that the canes in spring often break irregularly, a few strong ones at wide intervals only. These rush strongly away, depriving the more dormant and later buds of their proper support, in consequence of which the tissues at the base of the shoots wither and dry, and are unable afterwards to absorb the necessary nourishment from the Vine and consequently die. That has been the reason for similar failures in our experience. Occasionally the Vine mite is responsible. This works stealthily. We have seen shoots burrowed through at the base and killed in this way. Have a look at night with a bright lantern.

PEACH SHOOTS SHRIVELLING (*A. L.*).—Our correspondent, we think, is fortunate in having secured good crops of Peaches from his trees for nine years under the conditions he describes. We think the cause of the shrivelling of the fruit is due to debility and the want of vigorous root action, and fear that little can be done to improve matters before the autumn. There is no doubt that some roots have penetrated into the soil

of the inside border, and for a time derived sustenance from it, but now that sustenance is exhausted. Peach trees soon respond to generous treatment, and we would advise our correspondent to clear away the inside border for a width at least of 4 feet, and fill it up again with the best loam soil (with some lime rubble intermixed) he can find after the drainage is put right. Serve the outside border in the same way two years afterwards, the trees will then be stronger and more fruitful than ever. Care must be taken to preserve all the healthy roots, but long fibreless ones must be cut well back. Why the Nectarines have not suffered in the same way is possibly due to some local cause, perhaps they have not carried quite such heavy crops for so long a time, or that portion of the border may be in some way better drained. In any case the new border will benefit the Nectarines as much as the Peaches, and next year's crop will not suffer if the work is taken in hand in good time, say early in October, or as soon as the majority of the leaves have fallen.

FRUIT DRYING (*H. C.*).—The art of drying or evaporating fruit in this country has yet been practised on a limited scale. Experiments were carried out some few years ago in the gardens of the Royal Horticultural Society at Chiswick, and the results shown in London in the autumn of 1892. The quality of this dried fruit was considered so excellent that a silver-gilt medal was awarded to the owner of the drying machine used. In the autumn of 1902, Mr. Udale, Instructor in Horticulture to the Worcestershire County Council (headquarters Droitwich), exhibited a fine collection of dried fruits and vegetables at one of the meetings of the Royal Horticultural Society. As regards the taste of the Apples, it was remarked by many that it was as full of fruit acid and flavour as before the evaporation took place, and much to be preferred to the artificially sweetened dried fruit imported. The smallest drying machine we have heard of costs from £11 to £12, and may be had from Messrs. Lumley and Co., the Minories, London, E. The method also answers well for Pears, Plums, and Cherries. Should our correspondent care to experiment in a small way on his own account by drying in trays in an oven, or by the application of heat in some other form, we may say that for Apples a temperature of 175° to 180° is necessary, and maintained for three hours, and Plums 250° for from eight to ten hours.

AURICULAS (*Constance MacLeod*).—As the plants are now in their third season, you will do well to lift them and divide and replant without delay. Whether you do it now or late in August matters but little from one point of view, viz., that there will be a loss of leafage at any time. By doing the work at this time, however, you will be working in harmony with the new issue of roots for the year, and the plants so divided will have the best opportunity of building up flowering crowns for 1906. As you are remaking the bed, we certainly regard the time opportune for dividing the plants, and it is quite possible you will be able to fill a bed with the better sorts. The point of a sharp knife inserted here and there will, with pulling, be all that is requisite for successful division of the plants. Replant the divisions well up to the leaves and in such a way that the lowermost leaves eventually rest on the surface-soil. In planting hold the lowest leaves up with the left hand in such a way that the stem may be inserted deeply enough. This is especially important, because of the way these and allied subjects root from the upper portion of the stem. If well planted the bed may remain undisturbed for three years, mulching with loam, old manure, and a little bone-meal in the spring of the last year of the three.

TOMATO PLANT (*E. R. S.*).—The greatest enemy of the Tomato plant is the Potato disease fungus *Peronospora infestans*, and we think your plant is suffering from an attack of this. If the plant is only slightly affected we would syringe

it over with clear water, and then spray it thickly all over, under and over the leaves and stems as well, with Bordeaux mixture, allowing this to remain for two days, when it may be syringed off. This will kill the fungus in the initial stage; but if the disease has taken deep hold of the plant in stem and leaf nothing can cure it. We would advise its being pulled up by the roots at once and thrown away before it has had time to communicate the disease to the other plants.

ST BRIGID ANEMONE (*Constance MacLeod*).—These things are better planted during the dormant season, and as the growing season for this Anemone is now well advanced you will secure better tubers by attending closely to their wants—i.e., watering and the like—until the plants go to rest; then at any time you could transfer them to permanent positions. Do not fear to treat the young plants quite liberally, and endeavour to keep them green as long as possible. A deep loamy soil, with a small proportion of sand, suits these things quite well, or a soil in which there is much vegetable matter. Heavy and tenacious clay soils over a similar subsoil are not so well suited to the plants. Much sand or grit, leaf-soil, or old Mushroom bed manure should be added freely to lighten the soil. If you desire to form patches or clumps, do it in this way. First, well and deeply prepare the soil by digging and manuring, and, finally, take out about 4 inches of the surface portion of the soil, roughly level the depression thus formed, scatter in sand freely, place in your tubers at 6 inches apart, and cover.

SALVIA SPLENDENS (*W. P.*).—Few plants are more useful for the conservatory during autumn and winter than this. Plants propagated from cuttings in spring make good plants by autumn. It is not too late to take them, but you must do it at once. You must get strong cuttings if you mean to have good plants by the autumn. Sometimes it happens that the old plants are not in the best condition, but the cuttings soon grow, and you could take the tops from them and root them again if necessary. However, if your plant is in good health it will not be necessary to do this. As soon as the cuttings are well rooted and are growing freely you might plant them out of doors in good soil in some position sheltered from strong wind. Leave them there all the summer, and attend to them well in the way of watering, stopping, &c. The plants should be lifted the second week in September, and be potted in 12-inch pots. A fortnight before lifting them cut round the roots with a spade, so that the check of removal may be gradual. After potting, place them in the shade for a week or ten days until they have become established in the pots. Then bring them in your greenhouse to flower. After taking the cuttings from the old plants cut the shoots of these back to within say four buds of the base, and repot if you think it necessary. When it has started to grow well you could keep it out of doors during the summer, and bring it in the greenhouse in the autumn. They will need plenty of water during summer, especially those in pots.

PLANTS FOR SPRING FLOWERING (*E. T. H.*).—The following are all good spring flowering plants, besides being perfectly hardy and true perennials, i.e., lasting and increasing with years. *Arabis alba plena*, double white flowers, 8 inches high, a really fine plant. *Aubrietias* in variety, such as *Dr. Mules*, violet, *W. A. Ingram*, rose-pink, *Prichard's A1* blue-lilac, *Deltoidea grandiflora*, lilac, &c. *Primula denticulata*, *P. rosea*, and *P. cashmiriana*, all may be raised from seeds. *Hepaticas*, in blue, white, lilac, pink, &c. *Saxifraga Rhei*, pink flowers, *S. Guildford Seedling*, crimson, *S. Wallacei*, white, plants of these are very cheap. *Yellow Alyssum* is easily raised from seeds. These are a few of the more showy low-growing tufted plants. All are perfectly hardy, and will grow freely in any common garden soil.

THE SINGLE VIOLET (B.).—The illustration conveys an excellent idea of the greatly increased size and vigour which have been introduced of late years into the single Violets. The French have been the pioneers in this work, as they have been in many other aspects of horticultural improvements. It is to them we are indebted for the variety *Princess of Wales* (which is the one illustrated), and in our opinion this variety, with its companion *Princess Beatrice*, takes pride of place among all the single blues. The former was first exhibited at one of the Royal Horticultural Society's meetings some years ago simultaneously by Messrs. Cannell and Mr. Owen Thomas, when it was honoured by the floral committee with an award of merit or a first-class certificate—we forget which. Others of the same type have since emanated from France, and America, not to be behind, soon tried to eclipse the efforts of France in this direction by the production of a variety named *Philadelphia*. No English hybridist, so far as we know, has given any serious thought to the improvement of the Violet. This is to be regretted, as we think there is still considerable room for improvement, especially in the direction of infusing the lovelier tints of the lavender-blues and the delicate and exquisitely sweet scent of the old Neapolitan into the more robust constitution of these large single ones. To some lovers of flowers—and among the truest and most devoted they are—this inordinate expansion of size in the Violet, as in other flowers and fruit, is a subject of keen regret, as, instead of enhancing the attractions and sweetness of flowers, and especially the Violet, this great infusion of size, often at the expense of quality, tends to vulgarity. The Violet of late years has become a valuable asset in commercial horticulture, whether in the growth of the plant or the flowers for sale, and, as the public appetite for something sensational and large is insatiable, this must be produced at all cost. There is no doubt that the advent of the large, strong-growing Violet has enormously increased the growth of the plant in England of late years, as it has also increased its distribution among the poor of our towns, and to this extent at least its introduction has been a blessing. The culture of the Violet has lately been fully treated of in *THE GARDEN*. We will only add here that now is a good time to take up the old plants, dividing them into slips, each slip having a few roots to it, planting the same 2 feet apart (each way) in well-manured and trenched land having an eastern aspect if possible, and a wall or shrubbery behind for partial shade and shelter.

ROSE SHOOTS DAMAGED BY INSECTS (Rosarian). We believe the pest that has been at your Roses is one of the numerous Rose sawflies. Dust the shoots and foliage with Hellebore powder. Go over the plants very carefully and sprinkle the powder on every part. You will find a common pepper-box useful for this purpose. You should also go out at night with a lantern. Place a white cloth beneath the plant, which should be given a sharp shake. The little beetle-like insects will immediately drop off, and you can destroy them.

A NEGLECTED GARDEN IN DORSETSHIRE (M. A. G. D.).—Kitchen garden: The best thing to do first will be to engage an intelligent garden

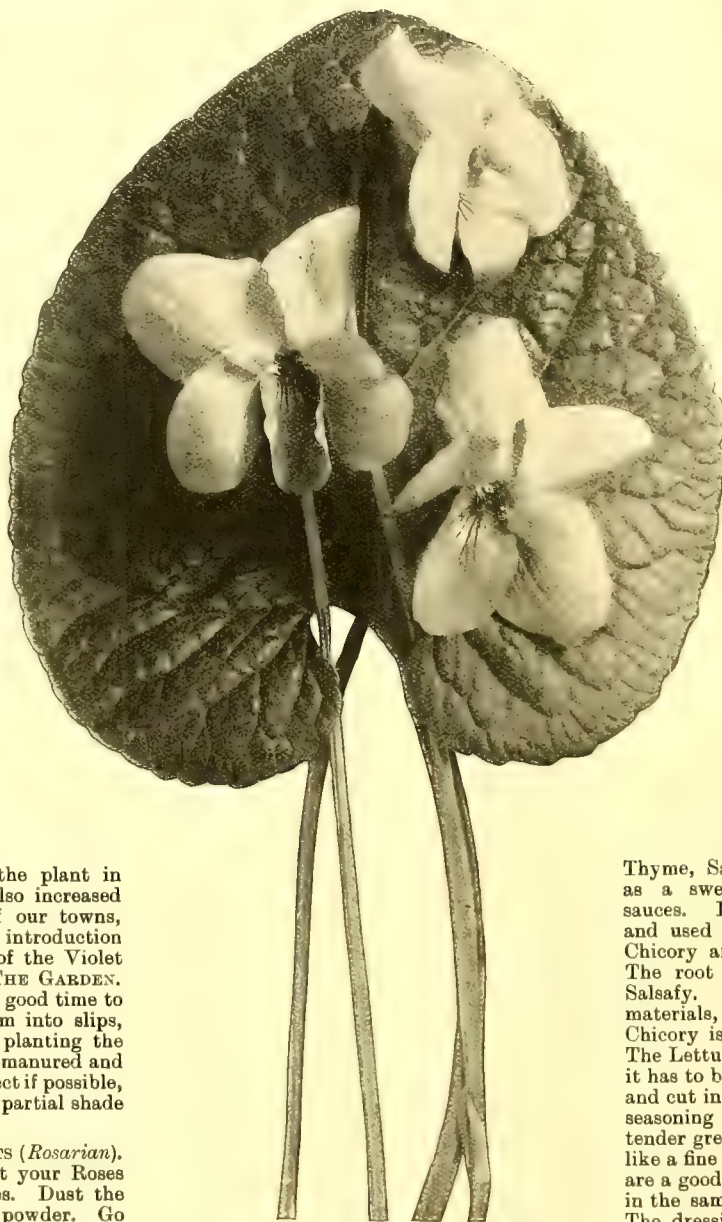
labourer or two, and at once prepare a quarter of the garden in an open part for the crops for autumn, winter, and spring. The ground should be dug a good spade's depth, and a light dressing of manure added. The following seeds should be sown without delay: Peas, French Beans, Scarlet Runners, Marrows, Cauliflowers, Cabbage, Lettuce, Radishes, Mustard and Cress, Leeks, Beetroot, Turnips, Spinach, Brussels Sprouts, Broccoli, Savoys, and Cottagers' or Scotch Kale. Regarding the old Asparagus bed, the best thing to do will be to have it well cleared of weeds first, and then find out how many roots are missing, planting two seeds in each vacant place, forking up the land a few inches deep before

Golden Feather, Gypsophila, Mimulus, Nasturtium, dwarf and tall, in various colours; Nicotiana affinis, the sweet-scented Tobacco Plant; Sweet Rocket, Sweet Sultan, Venus's Looking Glass, Virginian Stock, and Zinnia elegans. These ought to have been sown a month ago, but there is still a chance they may do well, and we think the chance is worth risking, as the seeds cost but little. The following flower seeds should be sown now to flower next spring and summer: Wallflowers, Forget-me-not, Daisies, Pansies, Violas, Primroses, Oxlips, Cowslips, Polyanthus, Aquilegias, Antirrhinums, Arabis, Michaelmas Daisies, Aubrietia purpurea, Canterbury Bells, Carnations, Cerastium tomentosum for edging, Del-

phiniums, Sweet Williams, Foxglove, Gaillardia, Honesty, Lupins, and Sweet Scabious. These should be sown without delay, and as soon as the young seedlings are large enough to handle they should be transplanted into rows 1 foot apart, allowing 6 inches between plant and plant in the row. In the course of the summer these will make good strong plants, and when the autumn comes (early in October) they should be transferred into the permanent borders, where they will give a beautiful display of flowers next spring and summer, supplemented, no doubt, by many hardy herbaceous plants, which are not so easy to raise from seed. As to the further arrangement and planting of your garden, nothing much can be done before the autumn, excepting, of course, heavy ground work, such as making walks and digging the land, &c. No doubt you will have an idea how you would like your garden arranged and planted, and if you will indicate this and give us a rough plan of the garden, with the permanent objects at present marked on, we will have pleasure in helping you further.

HERBS AND SALADS (S.).—Chervil is used for flavouring raw salads as described presently. Rampion root is eaten as salad. Purslane, a kind of Portulacca, is eaten as a green vegetable, best chopped and stewed in stock. Sweet Basil is used like

Thyme, Savoury, Marjoram, and Penny-royal, as a sweet herb for flavouring stews and sauces. Horehound is infused, fresh or dry, and used as a tea for coughs. Dandelion and Chicory are blanched and eaten as raw salads. The root of Skirret is boiled and eaten like Salsafy. No salad made of the usual raw materials, namely, Lettuce, Endive, or blanched Chicory is better than the plain French kind. The Lettuce, if clean, is best not washed, but if it has to be washed it should be carefully dried, and cut in large pieces or torn apart. The best seasoning herbs are Tarragon and Chervil, the tender green leaves being chopped quite small, like a fine mince. Onions or Chives, also minced, are a good addition. Leaves of Burnet are used in the same way, and give a Cucumber flavour. The dressing is one part mild wine vinegar to three parts best salad oil—a thing not always to be had good in England. An excellent winter salad may be made of boiled Potato and Beetroot in slices, with Celery cut in inch lengths, and the same minced herbs, excepting the Tarragon, which is not then in season. But Chervil, of which successional sowings may be had all the year, has nearly the same flavour. A saltspoonful of Celery salt and the same of pounded sugar is a desirable addition to the dressing.



VIOLET PRINCESS OF WALES.

sowing the seed. A well-furnished bed should have roots 2 feet apart all over it. It is now late to sow flower seeds in the hope of having a good return of flowers this summer and autumn, yet in the warm climate of Dorset, with diligent cultural attention, the following plants should give good results: Mignonette, Sweet Peas, Shirley and other Poppies, Stocks, Asters, Marigolds, Sunflowers, Clarkia, Collinsia, Godetia,

NAMES OF PLANTS.—*Mrs. Breunen*—The specimen you send is *Piptanthus nepalensis*. You can increase it by means of cuttings of half-pipe wood placed in sandy soil in a close but not very warm case in July, or, better still, you can sow seeds as soon as ripe. As a rule seeds set freely and ripen about the end of summer. These should be sown in sandy soil, and be transplanted annually until placed in permanent positions. In cold districts it should be planted against a wall. —*E. J. P. M.*—The Thorn is *Crataegus mollis*. The *Rhododendron* is a hybrid of which *R. arboreum* is evidently one of the parents, the other parent is probably some garden hybrid. It is doubtful whether it is named; there are many such unnamed in Cornish gardens. —*W. Gill*.—1, Probably *Cistus populifolius*, cannot be sure without flowers; 2, *Crataegus pinnatifida*; 3, *Viburnum Lantana* (Wayfaring Tree); 4, *Eleagnus longipes*; 5, *Phyllanthus nivosus*; 6, *Jasminum Sambac flore-pleno*. —*Joseph*.—*Acer platanoides*. —*G. B.*—The *Anemone* is *A. coronaria*, and the *Orchis* is *O. mascula*. —*Grecia*.—1, *Alyssum saxatile*; 2, *Ranunculus amplexicaulis*. —*Col. C.*—*Prunus* (*Cerasus*) *Chamaecerasus* (the Siberian Cherry). —*Green Rose*.—This is *Rosa viridiflora*. It is botanically interesting, but of no garden value. —*E. Neenham*.—1, *Spiraea Thunbergii*; 2, *Keria japonica flore-pleno*. —*E. C.*—1, *Gentiana scabra*; 2, varieties of *Epimedium rubrum*; 3, double Marsh Marigold (*Caltha palustris fl.-pl.*); 4, *Fritillaria pyrenaica*; 5, *Ranunculus amplexicaulis*; 6, *R. acronotifolius fl.-pl.*; 7, *Cyanthus puniceus*. —*W. P. M.*—1, *Pulmonaria rubra*; 2, *P. officinalis*; 3, *P. saccharata*; the Saxifrage is *Saxifraga hypnoides*. —*Adelbury*.—1, *Saxifraga ceratophylla*; 2, *S. sponheimsia*; 3, *S. hypnoides*. —*Miss O'Grady*.—*Cistus monspeliensis* var. —*M. L.*—1, *Rubus spectabilis*, a native of the western portion of North America. It is a decidedly pretty shrub, whose blossoms are borne about the same time, or perhaps slightly later, than those of the flowering Currant. It is a plant of free growth, reaching a height of 6 feet to 8 feet, or even more, and pushes up suckers in such profusion as to soon form a good sized clump. For this reason it is of too aggressive a nature to be associated with delicate subjects, as they may soon get choked by it. This *Rubus* is essentially a plant for the wild garden, or for association with shrubs vigorous enough to hold their own against it. Planted out in fairly good loamy soil that is not parched up during the summer, *Rubus spectabilis* is just at home. 2, *Exochorda grandiflora*, a native of China, and botanically a near relative of the *Spiraea*; indeed, it used to be known as *Spiraea grandiflora*. It is a very pretty shrub, which as a rule flowers more profusely when treated as a wall plant than it does as a bush in the open ground. —*Rustic*.—*Heuchera sanguinea*. —*Mrs. M. R. K.*—1, *Berberis Darwinii*; 2, *B. vulgaris*; 3, *Spiraea Van Houttei*; 4, *Cornus sanguinea*; 5, *Diervilla hybrida* var.; 6, *Crataegus Pyracantha*; 7, *Laurus nobilis*; 8, *Clematis montana*. —*Hortensis*.—*Dendrobium chrysotoxum suavisimum*. —*V. V.*—Bird Cherry (*Prunus Padus*). —*J. P.*—Unfortunately we could not name the Tulip from a single flower; it is probably one of the Darwin group, but it was impossible to say definitely.

SHORT REPLIES.—We have received some small immature fruits of Peaches and Nectarines packed in a matchbox without any letter or name enclosed. Will the sender please write. —*R. T.*—See reply to "Learner" in THE GARDEN, May 20, page 307. —*J. L. S.*—You need not trouble to remove the seed-pods.

SOCIETIES.

PARIS INTERNATIONAL HORTICULTURAL SHOW. This exhibition was opened on Saturday last in a series of buildings on the north bank of the Seine, near the Champs Elysées, and remains open until Monday next. The chief feature of the show, as, indeed, of most Continental flower shows, was the effective display of the exhibits as a whole. All, or practically all, the plants are in pots, the latter being plunged in beds of soil, so that to all appearances the plants are planted out, and each exhibit is but a bed or border in a veritable garden of flowers. Especially fine were the zonal *Pelargoniums*, *Cannas*, some of the *Roses* and tuberous *Begonias*, Japanese *Irises*, *Rhododendrons* and *Azaleas*, the floral decorations, annuals and other plants from seed, and the vegetables.

At the luncheon given to the exhibitors, judges, and officials, M. Viger presided, and was supported by the Minister of Agriculture and other members of the Ministry, members of the Royal Horticultural Society's deputation, and many distinguished horticulturists from various countries. A most hearty welcome was accorded to the foreign delegates. Among the visitors from England were Messrs. George Fawcett and R. E. K. K. (members of the jury), Messrs. Charlesworth, F. Sander, jun., L. Cutbush, W. Icton, Jannoch, Finches, H. S. Low, W. Laxton, Bevan, Whitty, Moorman, and others. The only exhibit from England was sent by Messrs. Cutbush and Son, Highgate, who exhibited some splendid *Malmesbury* and *Tree Carnations*. On Sunday evening the members of the jury, officials, and visitors were invited to a grand banquet. The prizes given by President Loubet were awarded to MM. Moser et fils, MM. Vilmorin-Andrieux et Cie., and M.M. Croux et fils.

ORCHIDS.

M. Marozz, Villeneuve-St.-Georges (S.-et-O.) was awarded the prize of honour in the class for 100 Orchids. The silver-gilt Flora medal of the Royal Horticultural Society was awarded by the deputation to this exhibit. It contained very good *Phalaenopsis*, *Laelia purpurata*, *Odontoglossum crispum phalaenopsis*, *Oncidium*, *Sobralia Veitchii*,

and others, which, however, were not arranged very effectively.

The finest lot of *Cattleyas*, *Laelias*, and *Laelio-Cattleyas* were shown by M. Charles Maron, Brunoy. *Laelio-Cattleya* Mozart was represented by a plant bearing some fifteen blooms, and others well shown were *L.-C. hyeana*, *L.-C. callistoglossa*, and *C. Grand Duchesse Elizabeth*. Large gold medal.

A gold medal and the silver-gilt Flora medal of the Royal Horticultural Society were given to M. A. Regnier, Fontenay-sous-Bois, for a splendid lot of *Phalaenopsis*. These plants were flowering for the second time within six months. They flowered last December. One plant of *P. amabilis* var. *Regnieri* carried twenty-four flowers, and in December it had twenty-six. It was given a special silver-gilt medal. Several fine varieties were included. *Vanda cœrulescens*, *V. Boxallii*, and *Aerides Houletii* were also shown by M. Regnier.

A very fine plant of *Aerides sanderiana superba* and of *Laelio-Cattleya Regnieri* (C. Mendelii × *L. purpurata*), from M. Regnier, each received a silver-gilt medal. M. Duval et fils, Versailles, had the best collection of twenty varieties of *Anthurium schottzerianum*. The spathes were large and of rich colouring.

M. Duval et fils, Versailles, were awarded a gold medal for groups of *Caladiums*.

MISCELLANEOUS FLOWERING PLANTS.

M. Boucher, Avenue de l'Italie, Paris, exhibited an imposing group of standard *Roses*, finely flowered, and a bed of *Rose Mme. Norbet Levassieur*. The plants, in pots, were plunged and very well flowered. M. Boucher also showed an excellent lot of Tea and Hybrid Tea *Roses* in pots and *Clematises* in numerous varieties. Gold medal.

One of the most gorgeous beds in the exhibition was made with zonal *Pelargoniums*. The plants, in small pots plunged in a bed surrounding a grass plot, were splendidly flowered, and, although stiffly arranged, were most effective. A small group was made of each variety. They were shown by M. Poirier, Versailles. A prix d'honneur and the silver-gilt Flora medal of the Royal Horticultural Society were awarded to this exhibit.

From the School of Horticulture, Florence, a group of *Anthuriums* was shown. They were all of the large-spathed type, and showed the best culture. The spathes were very large, and the exhibit was a curiously effective one. A large gold medal and the silver Flora medal of the Royal Horticultural Society were awarded to it.

MM. Arthur Billard, Le Vesinet, exhibited a group of tuberous *Begonias* that made a fine display in the mass, and some of the varieties were splendid. One called *Albert Crousse*, salmon, single and semi-double, was especially fine. The crested varieties, too, were very good. Gold medal.

A huge standard *Rhododendron Princesse Hortense* was shown in the centre of the large hall by MM. Moser et fils, Versailles, and around it was a semi-circular bed effectively planted with *Calceolarias*, *Primula obconica*, double *Cinerarias*, &c., shown by Messrs. Vilmorin and Co., Paris.

Malmesbury Carnations were shown by M. C. Beranck, Paris. Large silver medal.

A silver-gilt medal was awarded to MM. Rivoire père et fils for a collection of *Caladiums*. The plants were small, but the leaves were typical of the various sorts.

M. J. Idot, gardener to Mme. Ernest Dormeuil, Croissy (S.-et-O.), exhibited *Tree* and *Malmesbury Carnations* in variety. The blooms were very fine, although each plant carried only a few. Most of the varieties were fancy ones, few were self-coloured.

M. Aug. Nonin, Chatillon-sous-Bagneux, Seine, exhibited a collection of *Hydrangeas*, *Marguerite Queen Alexandra*, zonal *Pelargoniums*, *Bougainvillea sanderiana*, *Impatiens Holstii* (rich salmon red), *Carnations*, &c., and was given a series of medals. The plants were arranged around three sides of a grass plot, and proved very effective.

MM. Leveque et fils, Ivry-sur-Seine, showed a bed of standard *Roses*, bordered with plants of *Mme. Levassieur*. In front of the standards were beds of *Mme. Levassieur*, *Persian Yellow*, and *Soleil d'Or*, all dwarf-bedding *Roses*. A premier prix d'honneur was awarded.

A large group of *Palms* and other stove plants was exhibited by M. Charon fils, Boulevard de l'Hopital, Paris. The *Palms* were splendid specimens.

M. B. G. de Bosschere et Cie, Eeckeren-Anvers, Belgique, showed *Anthurium schottzerianum* in several varieties. Silver-gilt medal.

M. Paillet fils, Chateaufort, exhibited large-flowered *Clematises* in variety. He also showed a group of very fine *Tree Peonies*. The plants were small, but bore large, richly-coloured blooms, making a handsome group. The same firm also showed standards of *Crimson Rambler Rose*. Gold medal and the Royal Horticultural Society's silver Flora medal.

M. Moser et fils, Versailles, showed splendid standard *Rhododendrons*, with *Carnations* arranged effectively between.

M. Leon Jupean, Kremlin-Bicêtre (Seine), exhibited a large group of pot *Roses*, many of which were only in bud. Large silver medal.

M. Robert Lebaudy (amateur), Bougival (S.-et-O.), (gardener, Mr. J. Page), showed some very fine plants of *Caladiums* and *Malmesbury Carnations*. He was awarded a prix d'honneur for the former and a silver-gilt medal for the latter.

A group of Economic plants was shown by M. Godefroy Leheux, Paris. Large silver-gilt medal.

The large specimen plants of *Begonia Gloire de Lorraine*, which were among the finest we have ever seen, shown by M. Robert Lebaudy, Bougival (Seine), (gardener, Mr. J. Page), obtained a large gold medal and the silver-

gilt Flora medal of the Royal Horticultural Society. Fourteen of these plants were arranged as a group on a gently sloping bank, suitable greenery hiding the soil, and they were most effective. Most of the plants were quite 3 feet through.

The *Crotons* shown by MM. Moser et fils were finely coloured and well-developed plants in 6-inch and 7-inch pots. These formed an undergrowth to large standard *Rhododendrons*.

M. F. Doireau, Rambouillet, showed *Ageratum Souvenir de Ma Jeannie* and other sorts, all having curiously curled and crested leafage, and the flowers varying in colour from palest to deep blue.

Some very fine *Tree Peonies* were exhibited by M. Honoré Defresne fils, Vitry, near Paris. They were arranged on three sides of a grass plot, standard umbrella-trained *Roses* being arranged among them. Gold medal and silver Flora medal of the Royal Horticultural Society.

M. Cayeux et Le Clerc, Paris, made a large display in formal beds, with annual and other plants raised from seed. They were very closely arranged, and effectively filled the centre of one of the halls. Gold medal.

One square building was filled with *Roses* by two nurserymen, MM. Leveque et fils, Ivry-sur-Seine, and M. Rothberg, Gennevilliers (Seine). Standards were arranged around each side, while in the centre were large beds of dwarfs. All the plants were in pots, the latter plunged below the soil. They were finely flowered, and the leading varieties were represented. They made a splendid show. The standards were particularly well grown and flowered. The premier prix d'honneur was awarded to MM. Leveque et fils.

The Japanese *Irises* in pots shown by M. Tabor, Montmorency (S.-et-O.), were a delightful feature of the exhibition. A large bed was filled with them, and the lovely shades of purple, blue, and mauve among the white varieties produced a striking effect. The plants were in 10-inch pots, and each potful bore eight or ten blooms on an average. A gold medal and the Royal Horticultural Society's silver-gilt Banksian medal were awarded.

M. L. Ferard, Rue de l'Arcade, Paris, made a brilliant and extensive display with annual plants in flower. They made a border along one side of the hall, and the bright colours of the *Nasturtiums*, *Violas*, *Tagetes*, *Snagdragons*, *Aquilegias*, *Poppies*, and many more, small groups of each being arranged made a gorgeous display.

The silver Flora medal of the Royal Horticultural Society and a gold medal were awarded to a group of *Gloxinias* and *Hydrangeas* from M. G. Fargeton fils, Angers. One variety with flaccid foliage was very remarkable. As is well known, *Gloxinia* leaves are very brittle and easily broken, but the plant referred to may be handled with impunity.

The only exhibit from England was sent by Messrs. Cutbush and Son, Highgate, London, N. They exhibited *Malmesbury* and *Tree Carnations* in several varieties, all boldly arranged in large vases, and making a very bright display. The *Malmesbury* were huge blooms, and among the tree varieties *Mrs. Lawson*, *Fair Maid*, and *Ethel Crocker* were conspicuous. A fine yellow *Malmesbury Carnation* called *Yaller Gal* was included in this exhibit. Gold medal.

The *Deutzias* and cut *Lilacs* from M. Lemoine, Nancy, made an attractive group. Some of the finest of the former were *D. gracilis campanulata* (large white flowers), *D. grandiflora* (pale blush, very free), *D. Lemoinei* *Boule Rose* (small *Spiraea*-like heads of blush flowers), *D. Lemoinei* (very free, white). Among the *Lilacs* *Mme. de Miller*, *Miss Ellen Willmott*, *Mme. Lemoine* and *Jeanne d'Arc* (double white), *Prince de Beauvais* (single lilac), *President Loubet* (double, red-purple), were of the best. M. Lemoine showed *Peonia lutea superba* in flower. The plant in an 8-inch pot was about 2½ feet high, and bore two clear yellow flowers some 2½ inches to 3 inches across, and several buds. Gold medal.

The *Tulips* from M. E. Thibaut, Place de la Madeleine, Paris, made a bright display, although their arrangement was wanting in effectiveness.

The Royal Horticultural Society's silver-gilt Banksian medal and a prix d'honneur were awarded to M. Charles Simon, St. Ouen (Seine), for a large group of *Phyllocacti*, *Agaves*, *Echeverias*, *Aloes*, &c. The former, which were finely in flower, made a brilliant show.

M. Foucard, Orléans, and M. Molin, Lyons, exhibited large groups of fancy *Pelargoniums*.

Dwarf and standard plants of *Metrosideros floribunda*, bearing their bright red bottle-brush-like flowers in profusion, were given a gold medal and the Royal Horticultural Society's silver-gilt Banksian medal. They were splendid specimens and quite a feature.

The Indian *Azaleas* shown by M. Roger fils, Versailles, were full of bloom, and contributed an effective bit of colouring. Gold medal.

Cannas were well exhibited by Messrs. Billard et Barré, Fontenay-aux-Roses, Seine. Gold medal.

RHODODENDRONS.

One long corridor was filled on either side with groups of *Azaleas* and *Rhododendrons*. The most remarkable group consisted of two varieties only, *Azalea Antony Koster*, bright yellow, and *Rhododendron Robert Croux*, deep crimson. The plants were well flowered, and the colour association very effective. Large silver gilt medal. They were shown by MM. Croux et fils Chateaufort (Seine). The same exhibitors also showed other groups composed of large, well-flowered specimens of *Azaleas* and *Rhododendrons*; in fact, MM. Croux et fils practically filled the corridor devoted to these plants with a galaxy of rich colour supplied by *Azaleas* and *Rhododendrons*. There were banks of them, beds and borders filled with them, forming a picture unequalled in the exhibition for rich colouring and effective display. Several varieties well

known to English growers were noticed. Gold medals were awarded.

M. Moser et fils, Versailles, also showed large groups of Azaleas and Rhododendrons. Their varieties of Azalea Mollis made a brilliant show, and their huge bushes of Rhododendrons were much admired.

FLORAL DECORATIONS.

The floral decorations shown by M. J. Maissa, Boulevard Haussmann, Paris, were delightful. Epergnes of Caladiums, Anthuriums, yellow Cannas and Oncidiums, of white Roses, and a table decorated with Cattleya and Oncidium were very attractive.

Some charming table decorations shown by M. Lachaume, Rue Royale, Paris, received the prix d'honneur and the silver-gilt Flora medal of the Royal Horticultural Society. A mirror some 3 feet wide covered the centre of the table, and it was bordered with pink Roses and mauve Cattleyas, with Asparagus as greenery. In the centre were light and graceful arrangements with Orchids in variety, their brilliant colours being reflected in the mirror below. The decorated table was backed by handsome vases of ornamental foliage and flowers.

The floral display arranged under the auspices of the Chambre Syndicale des Fleuristes de Paris was a most beautiful exhibition. Epergnes tastefully filled with the choicest flowers, tables lightly draped with richest-coloured blossoms, vases boldly arranged, showed the art of floral decoration at its very best. The huge vases filled with one variety of Roses or Hydrangea paniculata, white Lily, or white Lilac were a conspicuous feature. Liliun speciosum melpomene arranged with a pale yellow Flag Iris made a most effective vase. German floral decoration, wreaths, vases of flowers, various floral devices were for the most part heavy and the colour associations bad. One wreath was composed of conifer shoots and Echeverias, another of Croton leaves.

FRUIT AND VEGETABLES.

There were exhibits of Grapes, Apples, Strawberries, Peaches, and Plums attractively arranged in glass cases. The Peaches and Nectarines from MM. Cordonnier et fils, Bailleul (Nord, France), were splendid, and received a gold medal and the silver-gilt medal of the Royal Horticultural Society. Nectarine Paçoce de Croucels and Early Rivers' were large and very finely coloured, and Peach Hale's Early was finely shown.

A gold medal was awarded to M. Durand, Paramé, for some very good Pine-apples.

Fruit trees in pots, as well as dishes of fruit, were well shown by M. Parent, Rueil (S.-et-O.). Gold medal and the Royal Horticultural Society's silver-gilt Knightian medal.

M. Nombrot Bruneau, exhibited a splendid collection of trained fruit trees out of doors near the entrance to the exhibition.

MM. Vilmorin-Andrieux et Cie, Paris, had a magnificent exhibit of vegetables, some 800 different varieties being represented. All the vegetables one can think of were on view, and several varieties of almost every one were shown. The yellow flesh Potatoes which are chiefly grown in France, largely owing to the fact that they are better suited to the French methods of cooking than the floury sorts grown in England, were well represented. There were salads innumerable, and, showing how varied they were, included were such out-of-the-way plants as Portulaca oleracea, Claytonia perfoliata (used as a flavouring), and Valerianella, in addition to a large number of Lettuces, Chicory, &c. This marvellous exhibit was arranged on the floor in the form of a bed some 4 yards wide and considerably over 100 yards long. The gold medal of the Royal Horticultural Society was awarded in addition to the prix d'honneur.

There were other good exhibits of vegetables, though none of such extent and variety as the above.

NEW PLANTS.

M. G. Boucher, Avenue d'Italie, Paris, showed a plant of Davidia involucreata about 4 feet high.

Dimorphotheca Ecklonis; a new Verbena bearing white crimson-striped flowers; a species of Ficus from West Africa, and an Aloe species from Madagascar, were shown by M. W. Pützner, Stuttgart.

M. Desire Ramelet, Bois Colombes (Seine), showed several new Adiantums, including A. Farleyense alcornone, not so good a plant as the type. The others were unnamed.

Some hybrid Nasturtiums were shown by MM. Cayeux and Le Clerc, Quai de la Mégisserie, Paris. They were hybrids of Tropaeolum Lobbi and the Canary Creeper.

Anthurium illustre.—A splendid plant of this was shown. It bore some ten or twelve leaves beautifully marked with various shades of green upon a cream ground.

Croton Duchesse de Gramont.—The upper leaves of this variety are richly coloured, orange red, lightly marked with green, while the lower ones are dark green lined with yellow and red. These two plants, each of which received a gold medal, were shown by M.M. Chantier frères, Mortefontaine (Oise). They were also given a silver-gilt medal for Musa sapientum rubrum, Maranta species from Brazil, Vriesia species, and for Kämpferia roscoeana, all stove plants. These were included in a large and effective group of stove plants.

ROYAL HORTICULTURAL SOCIETY.

ON Tuesday last displays of Tulips were largely exhibited in the Horticultural Hall, as the annual show of the National Tulip Society was held in conjunction with the usual exhibition. There was a good display of flowers, both hardy and exotic, and a large attendance during the afternoon.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. A. H. Pearson (chairman), and Messrs. H. S. Rivers, Owen Thomas, J. Jacques, C. Foster,

G. Reynolds, F. Q. Lane, G. Kelf, J. Lyne, H. Parr, J. Basham, H. J. Wright, Edwin Beckett, A. Dean, S. Mortimer, and G. Woodward.

Leopold de Rothschild, Esq., Gunnersbury House, Acton (gardener, Mr. James Hudson), was awarded a silver Knightian medal for fruit trees in pots of Early Prolific Plum and Cardinal Nectarine, and boxes of fruits of Cherries Governor Wood, Bigarreau de Schreken, Belle de St. Tronc, Early Rivers', Frogmore Early Bigarreau, Strawberry Royal Sovereign, and Peach Duchess of Cornwall. The fruits, especially the Early Rivers' Cherries, were excellent samples.

A cultural commendation was awarded to J. B. Fortescue, Esq., Dropmore, Maidenhead (gardener, Mr. Page), for some excellent fruits of Strawberry Royal Sovereign.

A vote of thanks was given to the Earl of Portsmouth, Whitechurch, Hants (gardener, Mr. R. Perry), for good fruits of the same variety.

Mr. Joseph Pitt, The Fythe Gardens, Welwyn, Herts, showed a dish of Vilmorin's early dwarf French Butter Bean.

NEW FRUIT.

Cucumber Delicacy.—This is the result of a cross between Matchless and Aristocrat. It is a short, dark green Cucumber, and a very free cropping variety. Shown by Mr. S. Mortimer, Farnham, Surrey. It was given a unanimous award of merit.

ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, de B. Crawshaw, Francis Wellesley, R. G. Thwaites, W. H. White, H. T. Pitt, J. Charlesworth, Walter Cobb, G. F. Moore, J. Wilson Potter, A. A. McBean, H. G. Morris, W. Boxall, W. H. Young, H. J. Chapman, H. A. Tracy, H. Little, H. Ballantine, Jeremiah Colman, and James Douglas.

Baron Sir Henry Schröder, The Dell, Egham (gardener, Mr. Ballantine) was awarded a medal for a beautiful group of Orchids, comprising Dendrobium Bensonie, Cattleya Skinneri, Miltonia vexillaria, Lælia purpurata, Cypripedium X superculare (with eleven flowers), various good forms of Odontoglossum crispum, Lælia cinnabarina, Cypripedium callosum Sanderæ, all finely flowered. Silver-gilt Flora medal.

H. T. Pitt, Esq., Stamford Hill, N. (gardener, Mr. Thurgood), showed some choice sorts in his group of Orchids. There were Cattleya intermedia alba, C. schilleriana, Lælia purpurata russelliana var., Odontoglossum luteo-purpureum vuystekeanum, O. crispum Maud Rochford, Dendrobium Victoria Regina, and other excellent plants in flower. Silver-gilt Flora medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed a small group of Orchids, that included Dendrobium Bensonie, D. chrysotoxum, Cattleya intermedia alba, and others. Vote of thanks.

The group of Orchids from H. L. Goodson, Esq., West Hill, Putney, S.W., contained some very good Odontoglossum crispum and other Odontoglossums, Anguloa Clowessii, Miltonia vexillaria Goodsoniae, and L.-C. Goodsonii (C. Mendell X L. Phoebe). Silver Flora medal.

A cultural certificate was awarded to J. B. Joel, Esq., Northaw House, Potter's Bar (gardener, Mr. May), for a splendid plant of Cypripedium rothschildianum bearing three scapes (sixteen flowers, and several buds in all).

Several other Orchids were shown, among them being Cattleya Skinneri Minnie, from F. Wellesley, Esq. It is white except for the purple throat, tinged green at the base.

A silver-gilt Flora medal was recommended to a plant of Odontoglossum wilckeanum Pittie, but we understand that this was eventually withdrawn and a cultural commendation substituted. The plant bore sixteen flowers.

Cypripedium Dom Carlos superbum.—A first-class certificate was awarded to this Cypripedium, shown by Norman C. Cookson, Esq. The dorsal sepal and petals are heavily spotted with dark crimson upon a cream ground; the pouch is cream coloured. C. lawrenceanum and C. Godefroy leucophilum were the parents.

Cattleya Pittie.—Cattleya Harrisonæ and C. schilleriana are the supposed parents of this newly-exhibited natural hybrid. Petals and sepals are deep rose, the lip, which is frilled, is rose and yellow; the two large lobes enveloping the column are pink. Shown by H. T. Pitt, Esq. (gardener, Mr. Thurgood). First-class certificate.

Odontoglossum lucasii, var. Heatonsense.—A well-flowered plant, the flowers chocolate coloured with yellow tips to sepals and petals, the lip being yellow, blotched with chocolate-red, was shown by Baron Sir Henry Schröder, The Dell, Egham (gardener, Mr. Ballantine). Award of merit.

Zygopetalum cranshawianum.—This is the result of a cross between Zygopetalum stapleoides and Z. citrinum. The plant flowered in 3 years 9 months and 25 days from the time of sowing the seed. The petals and lip are prettily and heavily marked with crimson-brown upon a yellow ground. The sepals are less heavy, though similarly marked. From de B. Crawshaw, Esq., Sevenoaks (gardener, Mr. Stables). Award of merit.

Dendrobium Venus Cookson's variety.—An award of merit was given to this plant shown by N. C. Cookson, Esq. It is large, and the petals are tipped with rich purple. The base of the lip also is rich purple, a band of white separating this and the dark purple throat.

NARCISSUS AND TULIP COMMITTEE.

Present: Mr. H. B. May (chairman), the Hon. John R. de C. Boscawen, Messrs. Robert Sydenham, R. W. Wallace, J. T. Bennett-Poe, James Walker, W. Poupard, E. Bowles, G. Reuthe, Walter T. Ware, J. D. Pearson, and C. H. Curtis.

Messrs. R. Wallace and Co., Kilnfield Gardens, Colchester, exhibited May-flowering Tulips in great variety. La Merveille, Parisian (yellow), Picotee, Gold

Cup, Gesneriana major, Zephyr, Margaret, and others made a brilliant show. Silver-gilt Flora medal.

Messrs. Hogg and Robertson, Rush, County Dublin, showed Tulips in variety. The flowers were large and boldly displayed. Such handsome sorts as Henner, elegans lutea, La Merveille, Loveliness, Pride of Haarlem, Mrs. Moon and others were included. Silver-gilt Banksian medal.

Messrs. Barr and Sons, Covent Garden, showed a brilliant group of Cottage and Darwin Tulips, as well as hardy plants. The Cottage Tulips were represented by Snowdon, Rosalind, Mrs. Moon, Bouton d'Or, The Moor, and others; and the Darwin varieties by Mme. Raven, Peter Barr, Clara Butt, &c. There were some very beautiful English Tulips also in Messrs. Barr's group. Silver Flora medal.

Messrs. Alex. Dickson and Sons, Limited, Belfast and Dublin, exhibited a splendid lot of Tulips, the Darwin and May-flowering types predominating. Among the former were Clara Butt, Royal Blue, Coquelin (bright red), Bronze King, Grand Master (light purple), Yellow Perfection, The Sultan, and Psyche (rich rose). Large vases full of each were displayed, making a very showy exhibit. Silver-gilt Flora medal.

Mr. G. Reuthe, Fox Hill Nursery, Keston, Kent, exhibited a small group of Tulips in variety. Silver Banksian medal.

Messrs. James Veitch and Sons, Limited, Chelsea, made a bright display with Parrot, Darwin, and May-flowering Tulips in variety. The flowers were beautifully fresh and bright.

A large group of Tulips was shown by Messrs. R. H. Bath, Limited, Wisbech. Darwins were chiefly represented, and they made an excellent display. The flowers were fresh, of good form and colour, and freely arranged. Silver-gilt Banksian medal.

Mr. Alex. M. Wilson, East Keal, Spilsby, Lincolnshire, exhibited a small group of beautiful Tulips, the flowers of such sorts as Clara Butt, Glow, La Merveille, and Coridon, making a most attractive display. Silver Banksian medal.

Messrs. William Bull and Sons, Chelsea, exhibited Tulips in variety. Darwin, Cottage, and Parrot varieties were each well represented.

Awards of merit were granted to the Darwin Tulips Whistler, bright red with blue centre, from Mr. G. Reuthe, Keston; Quaintness, old gold marked with rose red; and Innocence, a large, handsome white flower with yellow centre, both from Messrs. W. T. Ware, Limited, Bath.

NEW PLANTS.

Clematis montana var. rubens.—This fine plant when shown upon the last occasion received the award of merit, but the plant was then obviously not seen at its best, the sepals, as now seen, being fully coloured rosy lilac. It is not merely a fine addition to good climbing plants, it is also a good companion to the old and well-known white kind. From Messrs. James Veitch and Sons, Limited, Chelsea. First-class certificate.

Primula vittata.—This new species from Western China is virtually a purple flowered P. sikkimensis, with the same drooping umbels of flowers supported on somewhat shorter pedicels. Award of merit.

Lobelia tenuior var. rosea.—A pale rose-coloured form of the above-named species, the plant possessing the same habit of growth and freedom of flowering as the older kind. The new comer should be of service in many ways. Award of merit.

Both plants were exhibited by Messrs. Veitch and Sons, Limited, Chelsea.

Iris Persephone (Regelia-cyclus).—A large and handsome kind, coloured violet-blue and purple in the main, with many veins or reticulations on a white ground. The falls, which are heavily coloured dark purple, are more lightly veined white. The variety is of large size and showy in the extreme. From C. G. Van Tubergen, jun., Haarlem, Holland. Award of merit.

* * * The report of the exhibits before the Floral Committee is unavoidably held over until next week.

NATIONAL TULIP SOCIETY'S SHOW.

THE twelfth annual exhibition of this society was held in the Royal Horticultural Hall on Tuesday last. Although the schedule is not a large one, competition in most of the classes was unusually keen, and a finer display resulted than is generally seen. The chief prizewinners are given below.

For twelve dissimilar rectified Tulips, the first prize, a silver cup, was won by Mr. J. W. Bentley, Middleton, with some beautiful flowers. The second prize was awarded to Mr. C. W. Needham, Hale; third, Miss Willmott. Seven prizes were awarded.

For six dissimilar rectified Tulips the first prize was won by Mr. A. D. Hall, Harpenden.

For three feathered Tulips Miss Willmott won the first prize, Mr. Bentley being second, and Mr. Needham third.

The best three flamed Tulips were shown by Mr. W. Peters, Cambridge. The varieties were Sam Barlow, Mabel, and Duchess of Sutherland.

Miss Willmott won the first prize for three dissimilar Breeder Tulips, Mr. A. Chater being second. For six dissimilar Breeder Tulips Miss Willmott was also first with beautiful blooms of Goldfinger, Annie McGregor, Janette, and others.

In the classes for single blooms of the various different classes Miss Willmott, Mr. R. C. Chater, Mr. Bentley, and Mr. Hall won the first prizes.

The Samuel Barlow prizes for the best pair of rectified Tulips were awarded as follows: First, Mr. Needham; second, Mr. Bentley; third, Mr. Peters.

In classes open only to growers of less than 400 flowering bulbs of English Tulips, Mr. Kew was first for three flamed Tulips; Mr. Kene, second. For six dissimilar rectified Tulips, Mr. J. F. Kew was first. For three feathered Tulips, Mr. R. W. Hall was first.

THE GARDEN

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MAY FROSTS.

TWO years ago the hopes of fruit growers were dashed to the ground through a series of sharp frosts experienced in May, and once again the same thing happens. Ah, these May frosts! We realise what they mean to us when they are over, and but for them we could do many things confidentially in the horticultural line which at present are attended with great risks. We are told that there is a demand for home-grown fruit, and that its culture is profitable. Just so; but with what greater confidence would the industry be taken up if it were not for the possibility of May frosts, which in one night may ruin all chances of profit for a season.

Before the 21st growers were congratulating themselves on the way in which the Plums had stood the cold winds, and suggestions were made that it would be well if half the fruit fell off, and so avoid the evils of a glut which was then probable. One hears a different story now, and while the growers whose trees were above the frost line have reason to congratulate themselves, all the plantations and orchards which came within the grip of the frost have suffered considerably. The frost came as a surprise to a grower who has been experimenting with the Californian system of placing fire-pans underneath the trees to ward off the frost, for he omitted to light up on the night in question, with the result that the experiment shows nothing and the fruit is lost. A paragraph appeared in a morning paper to the effect that the Strawberry crop was hopelessly ruined, but we have heard that story before, and know that Strawberries are not spoilt so easily. Still the grim fact remains that, except in very sheltered situations, the first blossoms, which produce the finest fruits, were turned black, and this will necessarily make some difference to the pockets of Strawberry growers when the time for picking commences. We have known seasons of gluts of fruit in spite of May frosts having ruined the early blooms, but this may be accounted for by the fact that all the fruit in various districts from the second relay of bloom comes in together, instead of following in succession, as is the case in ordinary circumstances.

Traces of the frost could be quickly seen on the Pears, and many of the fruits have fallen, but it is too early to say anything about the Apples. The latter were in full bloom when the frost came, and though some damage is inevitable it is hoped that the loss will not be serious. As a matter of fact it is not the first few days after a sharp May frost that one is able to estimate exactly the amount of the damage done, but weeks hence, for fruit which at first sight may not appear to have suffered, receives a fatal check and falls off, when it ought to swell up and come to maturity. May frosts are the bane of fruit growers in this country, and through the possibilities of these alone the industry will always be risky. It is bad enough for an amateur, who grows fruit for a hobby or for his own consumption, to see the hopes of a year dashed in a few hours, but how much more serious is it to the commercial grower, to whom those blackened fruits mean a serious loss of money.

THE ANNALS OF THE LITTLE RED HOUSE.—III.

As is generally the case in neglected gardens, the gravel paths seemed to have suffered most. I think nothing adds more to the beauty of a garden than well-kept paths, and if the gravel is white so much the better. The turf verges, too, are of the greatest importance, and should be kept free of Plantains, Daisies, and the tiresome, bulbous-rooted Crowsfoot, which is one of our worst weeds.

Directly we had finished putting the herbaceous borders in order and the manuring and cropping of the kitchen garden was completed, we determined to tackle the garden paths, a task which, if it be properly done, is no light or easy one. Besides those existing, which were in a parlous state from moss, weeds, and dirt, we found it was necessary to make an entirely new path. One of the prettiest bits of border in the flower garden had to be approached over the lawn, and as here also were arrangements for a water supply, we foresaw that the constant passing to and fro would make it impossible to keep the grass from being very much injured, so we determined to make a gravel path alongside the flower-border.

We found, meantime, greatly to our relief, that the old paths had been so well constructed that they only required to be well weeded, turned over, and a skimming of fresh gravel added to make them as good as

new. This was done, and they were rolled constantly, particularly after rain, allowing a certain time to elapse first.

It entirely depends how a path is made at first whether it will remain satisfactory for years, as it should do. The foundation, as in everything else, is a great point, so we began by taking the right level and deciding on the width. The turf was then carefully raised with a turfing iron, rolled up, and put by for further use, and then the earth was removed to the depth of 12 inches. One-half the depth was filled in with bits of brick and any hard rubbish, of which there is always plenty about an old house. Over this went a layer of fine material of the same description, and the whole was firmly rolled down, leaving room for a good 3 inches of gravel on the top. We raised the path in the centre to allow the wet to run off, and as the weather was dry just then, the gravel was slightly damped before it was rolled. After that we gave the path repeated rollings at intervals.

If you like to make your own weed-killer for preventing the growth of weeds on your gravel paths, there is nothing better or cheaper than crude carbolic acid, using an ounce to a gallon of water; but great care must be exercised with all these chemicals to prevent any of the liquid falling on the grass verges. A board or two against the edge is a simple and excellent precaution. I never shall forget the state of the verges when on one occasion a weed-killer having been employed by my gardener, he walked first on the paths and then on the turf, with the result that for 100 yards there were burnt prints of his, by no means, fairy foot.

The paths being satisfactorily finished, the lawns were taken in hand, weeded, mown, and rolled—one piece was like a stubble field. The former owner had taken up and destroyed an old fountain, and had filled in the cavity left with rough material and a good deal of chalk and clay left from the fountain, and then he cut out a large round bed and elected to fill it with Rhododendrons and Azaleas. Now, as we all know, if there is one thing more than another that disagrees with these plants it is chalk, so what wonder if these plants were about as unhappy as they could be! So they were all taken up and given a chance for their lives elsewhere in more congenial soil. The bed was levelled and covered in with the turves left from the making of the new path, and soon you could hardly see where the old bed had been. There were two other harmless, but unnecessary, beds on the lawn, but these we decided to leave until the autumn. One we sowed with Shirley Poppy seed, closely following Mr. Wilks' instructions, and the other with Mignonette, which, knowing the existence of chalk in the neighbourhood, we opined would do well. Two long, narrow beds, one each

side of the walk leading to the house, in which were some rather unhappy-looking Roses, were planted with mixed Violas and Pansies, and two other similar beds were dedicated to Phlox Drummondii. The former plants, with plentiful waterings in dry weather and removal of the seed-pods, continued in bloom all the summer, and the Phlox flowered brilliantly from July until the frosts came.

AUGUSTA DE LACY LACY.

PRIZES FOR GARDENERS.

RESULT OF THE APRIL COMPETITION.

WE have carefully gone through the many papers, and have no hesitation in placing Mr. A. BEDFORD, The Gardens, Gunnersbury House, Acton, Middlesex, first. The answers to the questions are most instructive, and the system of culture is clearly explained. We print the answers with pleasure, as we feel they will prove of use to the beginner in the culture of fruit trees in pots.

The second prize is awarded to Mr. GEORGE CAMP, The Lodge, Holyport, Maidenhead.

The third prize is awarded to Mr. THOMAS DAVIES, The Gardens, Dunston Hall, Staffs.

The fourth prize is awarded to Mr. F. W. WALKER, The Gardens, Sion House, Sion Mills, County Tyrone, Ireland.

The second and third prize essays are exceedingly good, and it was necessary to read them several times before finally making the awards. We must also congratulate the winner of the fourth prize.

The next best essay was that written by Mr. A. D. CHRISTIE, Bidford, Warwickshire, and also well deserving of honourable mention are Mr. THOMAS TOMLINSON, The Gardens, Tower House, Leigham Court Road, Streatham; Mr. W. JONES, The Gardens, Hafodunos, Abergelle, North Wales; and Mr. M. MILLARD, Hartley Wintney, Winchester, Hants.

The majority of the papers seemed to show that the answers had been hurriedly written. This should not be when so much time is allowed for the competitions.

The first prize answers are as follow:

I.—With the exception of Figs, annual repotting of fruit trees in pots is most beneficial. The root space is so restricted that one season is sufficient to exhaust all nutriment from the quantity of soil used. Therefore by thoroughly reducing old balls and adding fresh soil fibrous roots are encouraged, which are most essential for the future welfare of the trees. On the other hand, Figs give better results if only repotted every second or third year. In intermediate years the top soil can be removed as much as possible, and replaced with fresh without taking out the tree.

II.—The latter end of October. Good turfy loam, with which is mixed well rotted manure in the proportion of one part to three. To this add old mortar rubble, well broken up, at the rate of one barrow-load to the load. If the loam is not of a calcareous nature, a freer use of mortar rubble may be made, as it is most beneficial to stone fruits. For Figs and Cherries certainly use in greater proportion. Shrivelling of the wood and bud dropping are sure to follow if the trees are subjected to either extremes of wet or dryness at the roots, or neglecting to keep the trees syringed.

III.—If proper attention has been given to the trees, that is, kept pinched during the growing season, pruning is a very light task with pot trees, and this operation may be performed with forced trees when the house is set up for starting at the latter end of November or beginning of December, and following on with the later trees. Shorten previous year's shoots back so as to retain four or five buds, always making sure to cut to a leaf-bud. Short spurry growth is the chief object to aim at in pot culture. In the London district it is advisable only to give slight pruning before the trees are started, removing useless wood and retaining long shoots until after the fruit is set. In this way a fruit may be carried on a shoot not required for furnishing the tree, afterwards cut right out. The reason for this system is because fogs sometimes ruin the greater part of the crop. If treated in this way an extra fruit may be secured.

IV.—Fifteen to twenty years would be a fair average, although there are instances of much older trees still doing good service. Want of repotting, an unsuitable house, overfeeding with artificial manures, and overcrowding are some of the reasons for pot trees quickly deteriorating. The first remedy to restore to health would be to rest the trees from forcing and cropping. Do everything to encourage root action and growth. A very good plan is to repot into perforated pots. Plunge the pots to the rims in the border out of doors, giving plenty of light and air. In this way the bulk of the roots are kept within bounds, but others protrude through holes in pots into the border, and so supply the tree with more nourishment. In this way trees may be brought round again to healthy fruiting specimens.

V.—Peaches: Duke of York, Peregrine, Dr. Hogg, Crimson Galande, Sea Eagle, and Thomas Rivers; Peregrine the best. Plums: Early Transparent Gage, Reine Claude de Bavay, Jefferson, Golden Transparent Gage, Coe's Golden Drop, and Late Transparent Gage; Golden Transparent Gage the best. Cherries: Guigne d'Annonay, Early Rivers, Bigarreau de Schreken, Governor Wood, Frogmore Early Bigarreau, and Black Tartarian; Early Rivers the best. Figs: St. John, Negro Largo, and Bourjasotte Grise; Negro Largo the best. Nectarines: Early Rivers, Advance, and Albert Victor; Early Rivers the best.

VI.—To secure ripe fruits by the middle of May, Plums and Peaches should be started the beginning of the last fortnight in December; Cherries and Figs the beginning of the last fortnight in January. By starting very gently and using first early varieties, and paying due attention to temperatures, ripe fruit is certain to be obtained by the time desired. No strict rules can be laid down for temperatures during early forcing, as one must be governed by outside conditions. High night temperatures must be avoided, nothing is more detrimental, especially at the commencement. Any time lost at the beginning can afterwards be made up a few weeks before ripening, when the weather is more favourable. The following temperatures may be taken as a guide in producing ripe fruits by the time stated, arranged fortnightly: December 17 time of starting Plums and Peaches: 35° by night, 35° by day; 35° night, 38° day; 40° to 45° night, 40° day; 40° night, 45° day; 40° to 45° night, 45° to 50° day; 45° night, 50° day; 45° to 50° night, 50° to 55° day; 50° to 55° night, 60° day; 55° to 60° night, 65° day; 60° to 65° night, 65° to 70° day; 65° to 70° night, 70° to 75° day. The above temperatures apply to Plums, Peaches, and Figs, starting Figs at same degrees as given for third fortnight, and so continuing. The above temperatures must in all cases be reduced 5° less for forcing Cherries from time stated for starting same, as Cherries respond more freely to forcing, and they do not require to be closely shut up; leave a little air on top and bottom ventilators always, except in frosty weather, until the fruit is ripening. Excessive artificial heating is fatal to Cherries, therefore do not employ it more than absolutely necessary. It will also be necessary to shade Cherries when in flower during very bright sunshine by means of syringing with whitening on the glass.

VII.—Phosphate as a chemical manure will be most beneficial to all stone fruits such as those mentioned, as it tends to encourage even growth and formation of fruit buds. It also supplies great assistance in the development of the stone. In applying a chemical manure it is of the greatest importance that one should be thoroughly acquainted with the nature of the soil to be dealt with, otherwise more harm than good may be done. Personally, I am not an advocate for the excessive use of manures, especially with stone fruits. Liquid manure I prefer to all others, and that only applied in a weak state once or twice a week after the stoning period is over.

VIII.—To remain for two or three weeks in same positions in house, reducing artificial heat gradually. Ventilate freely in order to harden them off prior to being taken outside; then they are plunged up to the rims in a border, placing a brick or few ashes at bottom of holes for pots to stand on. The reason for plunging is, first, because the earth which envelops them keeps the pots and their contents cool and moist, and reduces the labour of watering considerably; secondly, it prevents the trees from blowing over in windy weather, and possibly getting damaged in that way. Water must be given in dry weather, and the plants holed or syringed every day, except when it rains, in order to keep them clean and healthy. This operation continues until the end of September, when the trees are again brought indoors for repotting. For this process it is necessary to place under cover for a time, so that the earth in the pots shall not be sodden. It is not advisable to place early forced Figs out of doors, but under shelter.

Rhododendron Pink Pearl is very finely in flower out of doors at Sunningdale Park, Berks. The large trusses of rich pink flowers are most freely produced.

NOTES OF THE WEEK.

A coloured plate of *Rhododendron fulgens* will be given with THE GARDEN next week.

Royal Horticultural Society.—

Among the new Fellows elected at the general meeting on Tuesday the 23rd ult. were the Dowager Lady Ashburton, Lady Deane, Lady A. Fitzwilliam, Lady Constance Hatch, Lady E. Malet, Lady Barbara Smith, Lady Beatrix Stanley, Lady Violet Villiers, Lady Clementina Waring, the Hon. Mrs. Farquhar, the Hon. James Hozier, M.P., the Hon. Mrs. Percy Mitford, the Hon. J. S. Talbot, M.P., Sir R. Drummond Moncrieffe, Bart., Sir Vincent Caillard, Mr. Richard L. Loveland, K.C., D.L., Lieut.-Colonel E. Tufnell, M.P., Lieut.-Colonel J. W. Yerbury, and Mr. F. Courtenay Warner, M.P. A lecture, illustrated by lantern slides, was delivered by Mr. E. Morell Holmes on "Medical Plants Old and New," which, in view of the celebration of the centenary of the Royal Medical and Chirurgical Society last week, was both most opportune and interesting. The lecturer pointed out that, although horticulture must have begun at a very early period of civilisation, the plants required for medicinal use were chiefly collected from the fields and woods, and were not specially cultivated, except those which, like the Pomegranate and Almond, afforded edible fruits, and, like Henna, were planted for their fragrance, and, like the Lily, for their beauty. It was only in the records of monasteries, abbeys, and nunneries in the Middle Ages that we found any mention of a physic garden or portion set apart for the cultivation of medicinal herbs, usually near the surgeon's residence, and distinct from another portion of the garden, retained for culinary herbs. One of the first lists of plants cultivated in these physic gardens was given in the Capitulary of Charlemagne. Subsequently wealthy citizens had physic gardens, and during the reigns of the Tudors there were physic gardens under the charge of the apothecary who attended Royalty. Private physic gardens were followed by municipal physic gardens, and these developed into the modern botanical gardens to which modern horticulture owes so much. The increasing use of quinine led to cultivation of *Cinchona* Bark on a large scale in India and Ceylon, followed by that of *Coca* in various colonies. The lecturer also alluded to the cultivation of Indian Hemp for medicinal purposes, and to the ancient and more extensive cultivation of the Opium Poppy in various countries. The lecture was illustrated by numerous photographs, showing ancient gardens and the cultivation of medicinal plants in farms in this country, and of *Cinchona* and Opium in India. The Tulip Society held also their twelfth annual show (Southern Section) in connexion with the same exhibition (Tuesday, the 23rd ult.). The first prize (a silver cup) in the Blue Ribbon Class (A) for twelve dissimilar rectified Tulips was won by Mr. J. Bentley of Middleton, Lancs, whose exhibit included the best flamed Tulip in the show. Miss Willmott showed the best feathered bloom. In the second class, for six dissimilar rectified Tulips, Mr. A. D. Hall of Harpenden was first; he also showed several seedlings of great promise, some of which were certificated. Mr. B. Chater of Cambridge also received a certificate for a fine purple seedling of excellent form, and exhibited the best Breeder Tulip shown.

Damage by frost.—This district has suffered incalculable damage by the severe frosts of the past two days. Twelve degrees were registered in these gardens on the 23rd ult., and 8° on the 22nd. Potatoes protected by mats and tiffany have been completely cut down. Bedding plants and Chrysanthemums that were hardened, though protected by mats, have been destroyed. Foliage on all Oak trees is shrivelled up.—F. J. CLARK, *Wistow Hall Gardens, Leicester.*

Inula Hookeri.—What a pity it is that so many varieties of this Inula, originally obtained as far back as 1851 from the Sikkim Himalaya, are sold for the true form. The true plant is the latest (September) to flower of any variety that I know; the flowers are large, with narrow, drooping tipped florets of a clear yellow colour. The foliage, too, is more compact in growth than any other variety, and paler in colour. There is no mistaking the plant when seen, but there is much confusion as to the correct variety among hardy plant growers.—E. MOLYNEUX.

Sutton's Flower of Spring Cabbage.—In many gardens this season has been a bad one for Cabbage, numbers having run to flower. I have always found Sutton's Flower of Spring a reliable variety. I have a patch of about 500 plants, which have all turned in well. By the side of these are other sorts, which have run badly. I always plant a good number of this Cabbage for spring cutting, for it has never failed to give me a lot of fine heads just at the time Cabbage is in demand.—W. J. TOWNSEND, Sandhurst Lodge.

Primula deorum.—This is one of the rarest and most beautiful of alpine species, never found in masses, but only scattered here and there. In recent notes it was said to be quite new, and having flowered for the first time in this country. The plant was collected by Professor Velonovsky of Prague, and described by him in 1890 in the Bulgarian Flora. A year later (1891) Herr Max Kolb of the Royal Botanic Gardens, Munich, sent Herr Kellerer (now superintendent at Sofia) to collect *Primula deorum*, *Lilium Jankae*, and other rare Bulgarian plants, and he brought home a number of *P. deorum*, all of which were distributed. Some of them came into my possession, and were afterwards offered by Mr. T. S. Ware of Tottenham, with whose firm I was then connected. They flowered in 1892 for the first time with us, and were shown before the Royal Horticultural Society and the Royal Botanic Society. The plants—magnificent specimens—were all sold by Mr. Ware, and some of them were alive when the present more plentiful supply reached English hardy plant dealers. Thus the species has never been out of cultivation since its first introduction in 1891.—G. REUTHE, Keston, Kent.

Seeds to sow.—June is an excellent month in which to sow seeds of various flowering plants to give colour the following year, and if a judicious selection is made it is astonishing what a blaze of colour can be obtained at a reasonable cost and with ordinary skill. The following are most useful for spring flowering, and should be sown at once: *Aubrietia violacea*, a violet-coloured dwarf plant, useful for carpeting or edging, as also is the pink form, *A. Leichtlini*; *Arabis alpina*, a similar plant with white flowers, a good grower and free flowerer; *Alyssum saxatile compactum*, a yellow variety, and distinct where massing is required. I find these plants thrive much better in heavy than light soils. *Myosotis* of various sorts, not forgetting Sutton's Royal Blue. I saw a quantity of this recently at Avon Tyrrel, in the gardens of Lord Manners. The colour, which is an indigo blue, is remarkably pleasing, and the flowers are most useful for cutting purposes, giving a splendid effect when arranged with flowers of Lily of the Valley. Wallflowers, too, should be sown now if sturdy plants are required for October planting. These should include the dwarf yellows and the dark reds; Sutton's Phoenix is a very good variety. Polyanthus Primroses should be sown in boxes north of London; the colouring of the recent hybrids is far better than in the older sorts. When planted in plenty of leaf-mould I know of nothing better to give a display of bright colours throughout the months of April and May. I usually sow my spring-flowering seeds in small neat beds in the kitchen garden, pricking them out when large enough to handle into small

nursery beds, where they remain until the summer flowers are over in the flower garden, when the beds are prepared to receive them. A very effective border may be made with *Aubrietia* as an edging, *Polyanthus* at the back, then a row of *Myosotis*, and the whole backed with a good yellow Wallflower. Of course, different effects may be produced with bulbs of various kinds, but for those who cannot spare the expense the flowers I have mentioned are sure to please.—G. BURROWS, Avon Castle.

A good Cabbage Lettuce.—As a grower of winter Lettuce I am interested in getting the best for early outside cultivation. I have tried many sorts for some years past, and I am satisfied that Messrs. Webb and Sons' (Stourbridge) Immense Hardy Green Cabbage Lettuce is as good as one can have. Last autumn I planted out other sorts, but all were killed during the winter. Out of 160 of the Immense Hardy Green Cabbage Lettuce not one dozen were lost throughout the winter. I began cutting a fortnight ago, and can continue for some time to come. Where hardy early Lettuces are wanted I should like other readers of THE GARDEN to give it a trial. I have given this Lettuce previous trials, with the same good results.—IVY HOUSE, Kent.

EVENING PRIMROSES.

Now from the west the tides of twilight set,
And winged wraiths of dusk with wings dew-wet
Flit over brimming bud and bell; and late
The Day, grown weary of the golden state
June bids him keep, looks back and lingers yet,
And kisses Night across the Western gate.

For nightingales at last have bid her rise
From those enchanted thickets where she lies
Dreaming at noon of him who holds her heart.
Across the bar she meets his radiant eyes
And hides her face, but cannot say, depart.

Alas, how little time they have to meet!
See where she steals on slow, mysterious feet
To lull the starry Lilies in the stream.
Her lips with Day's remembered kisses sweet,
She stills the birds, and bids the Roses dream.

But when she comes to those tall spires that stand
All day in dreams too deep for day's delight,
She leans to touch them with her slender hand.
"Shine out," she whispers, "little lamps of Night!
O little lamps, shine out and give your light,
I set you in the windows of the Night."

And Day from distant places, where he goes
With folded wings the darkling ways afar,
Has seen and known the delicate Primrose star,
And thinks with rapture of the happy close,
When the dawn's heart is hushed as the heart of a Rose,
And Night stands waiting by the Eastern bar.
E. M. W.

The Gravenstein Apple in Ontario.—This famous German Apple is a universal favourite. The excellence of its flesh, its beautiful and attractive exterior, its abundant productiveness, and its large size all combine to make it the very best Apple of its season. It is not a very old Apple. The first description of it was written about 100 years ago by a German pomologist, and about 1850 it is said the original tree was still standing in the garden of the Duke of Augustenberg, at the Castle of Grafenstein, in Schleswig-Holstein, Germany. The Apple is widely grown in Western Europe as an early autumn market Apple, and it is this Apple that has made the Annapolis Valley, in Nova Scotia, famous; so much so that many people suppose there is no place equal to it for Apple culture. As a matter of fact, this Apple can be produced in Ontario quite as perfect, and possibly larger in size than in the Annapolis Valley, and it is a mystery why our Apple growers have not planted them. Very seldom do we find an orchard of the Gravenstein in Ontario, and, indeed, rarely do we find even single trees of this excellent Apple. No trees are as beautiful in blooming season as these.

The great, pure white blossoms throw all other varieties into the shade, and attract the ladies in search of floral decorations. The fruit makes the most delicious sauce, and the very best of Apple pies, while for a commercial variety it is unexcelled. The fruit is clean and uniform in size, and it commands the highest price in the British markets.—*Canadian Horticulturist*.

Iris pumila (the Crimean Iris).—This is now (May 1) flowering freely, and I think that the blooms are individually finer than I ever remember to have seen them. Coming into bloom several weeks earlier than the varieties of the Flag Iris, this dwarf species is valuable. We cannot have too many of those hardy plants that expand their flowers so early in the season. The low growth of this Iris fits it for the front row of the herbaceous border and for that kind of rock-work which admits or, indeed, demands the employment of rather strong-growing things. A rather elevated position shows off the beauty of the flowers, which, although large, do not rise more than 1 foot above the ground. Although there is not the same variety of tint in this Iris as one gets in the different sections of the Flag Iris, the various shades of mauve, purple, yellow, and bronze are rich and beautiful.—J. CORNHILL.

Cactus Geraniums.—This is the designation given to these singular developments in the zonal Pelargonium by Messrs. W. and J. Brown of Stamford and Peterborough, who lose no opportunity of keeping them before the public; and as the crimson-flowered Cactus *Dahlia Juarezii* has developed a progeny of remarkable tints and hues, so the scarlet Cactus Geranium with its curious divided florets has developed varying colours, with a greater massiveness of truss. Among the new varieties this firm had at the last meeting of the Royal Horticultural Society were J. R. Greenhill, of a pleasing shade of soft pink, the plants producing many trusses of bloom; Exquisite, salmon-rose; Mrs. J. Brown, of quite a dark shade of scarlet, and very free; A. Metcalfe, rosy salmon, bears compact trusses of bloom; and The Countess, of a charming shade of dark salmon. The foregoing were new varieties of 1904. Those of the present year are Blush Queen, bluish changing to white, very free and of compact growth; Snow Queen, pure white; and Flambeau, fiery-red, one of the most effective. There are others with undoubted claims to attention, but the foregoing appeared to be the attractive ones of the batch. These Cactus Geraniums make very pleasing pot plants for the greenhouse and conservatory, and, mingled with ordinary varieties of zonal Pelargoniums, with their large rounded pips and imposing trusses, add to the gaiety of the house. I do not think they will make effective bedders, unless in a very favourable season, but they will always possess a unique decorative value.—R. D.

A new Fern.—The variegated variety of *Blechnum Spicant* has not been recorded in any of the Fern books as having been previously found by any one except the writer, who discovered it on the Mourne range of mountains in County Down—first at Rostrevor in 1876, and again in 1885 and 1904 at Newcastle. It may, therefore, be considered as exceedingly rare. The writer, along with Mr. W. Porter, made an excursion to the Mourne Mountains on the 22nd ult., specially to hunt among *Blechnum Spicant*, which grows there in abundance. After a rapid railway journey to Newcastle, we walked to Bloody Bridge, and ascended the mountain at Glen Fofany about 300 feet, working along the slopes towards Newcastle, closely examining everything we saw. Several very good forms were observed, such as *Crispate*, *Trinerve*, *Pectinate*, and *Multifid*. But the reward of our labour came later on, when on the way to the railway station, walking together, the keen eye of Mr. Porter detected a fine plant of *Blechnum Spicant* beautifully variegated. On examining it carefully it became evident he had indeed been

fortunate in finding a great prize. It was dug out tenderly, and after careful packing so as to avoid damage, we proceeded on our homeward way rejoicing. The fronds, about thirty in number, were of normal outline, length 14 inches, breadth $1\frac{1}{4}$ inches, the colour a dark green, with diagonal yellow stripes running from the midrib of the pinnules to the margin, sharply defined. This plant was growing by itself in a large clump quite separate from the surrounding normal forms.—W. H. PHILLIPS, *President of the British Pteridological Society and President of the Belfast Naturalists' Field Club.*

Fruit and vegetable committee awards.—It is very probable that before another Royal Horticultural Society's year begins

they have before them the full product of the subject to be considered. When the Orchid or Daffodil committees have before them flowers they have practically nearly all of the plants' production with which they are specially concerned. The floral committee can, as a rule, have before them plants to show habit or foliage, as well as flowers, and so frequently does it happen, whether a Rose, a Carnation, a Pæony, or of so many things, the entire subject tells its own tale. How was it possible to make a mistake when dealing with such a remarkably beautiful plant as *Meconopsis integrifolia*, for instance? But the fruit committee, when dealing with Apples, Pears, Plums, Peaches, Nectarines, Cherries, Strawberries, bush fruits, or Raspberries, and the many kinds of vegetables put

before them, can have no absolute assurance what the variety will be when in general cultivation. It is for lack of guidance of this sort, and unwillingness to do an injustice to any new thing, that awards of honour have been in the past rather freely made. But it is now found how often good intentions have become mistakes, and the long list of awards made during the past thirty years is, indeed, painful reading. If there have been some awards amply justified, how many have proved to be altogether wrong? Fruits are essentially erratic. Even many things grown under glass, where as a rule temperature, culture, and general conditions are so much alike, yet prove to be so diverse that they fail as often as they succeed. How many Grapes, for instance, that have been introduced in a blaze of glory have very soon been regarded as very third rate, or even as failures? How many Strawberries have gone the same way? How many other fruits also? How much of the same nature may

be said with regard to vegetables? Naturally these things have attracted attention, and it is now desired to take some steps to remedy so far as possible what seems to have been wrong in practice. It is well worthy of notice that for many years the reference of new things for trial to Chiswick was very much a farce. But now the society has an excellent place for trials in the open and admirably placed garden at Wisley, where also glass houses have been erected, such as will enable trials of Melons, Cucumbers, or Tomatoes to be well conducted, and where also Grapes, Peaches, and other fruits can be grown, where bush fruits, Raspberries, Strawberries, Apples, Pears, Plums, &c., can

also be well grown, and where it should be possible to obtain not an infallible, but at least a fair line as to their general merits or otherwise. Hence the relegation of any new thing to Wisley for trial before any definite award is made has now about it a practical reality. So far as at present considered it is suggested that no award of merit or first-class certificate be granted to any new fruit or vegetable at the first; only a "card of commendation," indicating it to be a thing of promise. Trees, bushes, plants, or seeds of various things should be early sent to Wisley, and the product there would materially determine the nature of the further award.—A. D.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

ERICA LUSITANICA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I enclose a photograph of a large plant of *Erica lusitanica* that we have growing here which may be of some interest. We have two other plants, but this is the best. It is a splendid winter-flowering plant, and has been in bloom this year from the beginning of November, and is only now just going over. On one occasion this winter we registered 18° of frost, and yet the blooms suffered no harm. Our soil is of the poorest, being nothing but stones and white sand, with an extremely thin layer of peaty soil on top. Until three years ago this plant was growing in a large and neglected clump of *Rhododendrons*. These have been removed, and an annual dressing of natural peaty leaf soil from the woods is given. Last year it ripened its seeds well, and I have now got a batch of young seedlings coming on.

F. M. MARK.

White House Gardens, Hythe, Southampton.

THE PRUNING OF SHRUBS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It would be a real boon to many urban and suburban districts if local authorities, without undergoing any great expense, could have some control over the regulation of shrubberies in roadside gardens. It is true they have the power to demand the lopping of branches of trees and shrubs which overhang pathways to the inconvenience of passers-by, but what is urgently needed is some supervision over the management of shrubs. It is not unusual in neighbourhoods of fifty years old and upwards to see Lilacs which have grown to a height of 25 feet, with the result that the stems to a height of 12 feet or 14 feet are perfectly naked; and the same remark holds good of Laurels, Privet, &c., while it is not unusual to see Aucubas 10 feet and 12 feet in height, with some foliage on the topmost branches, but with several feet of bare stem below. These overgrown shrubs shut out sunshine and air from neighbouring gardens, to the great detriment of subjects growing in them. Families will occupy one of these villa residences for years, witnessing the growth of shrubs beyond all reasonable limits, and apparently quite content to have gaunt limbs bare of foliage against their walls and fences instead of a cheerful growth of foliage. Hundreds of such instances can be seen in the suburbs of London; gardens have become copses instead of pleasant and inviting spots. It is very difficult to suggest a remedy, but as local authorities have open spaces to keep in due order and employ properly-qualified men for the purpose, they, perhaps, might at certain seasons of the year make an offer of assistance to keep shrubbery borders in due bounds of growth, adding to the attractiveness of the garden and preventing the overgrowth of tree and shrub from being a nuisance to neighbours. The strong prejudice which exists against efforts of municipal



A BEAUTIFUL HEATH (*ERICA LUSITANICA*) IN A GARDEN AT HYTHE, SOUTHAMPTON.

a practical revolution may be effected in the existing method of making awards to new fruits and vegetables presented to its notice. The subject was discussed by the fruit committee at a recent meeting on the initiative of the chairman, who read certain proposals which he suggested the committee should adopt and present to the council for consideration. As it was, however, agreed that these proposals be typed and sent to each member of the committee for fuller consideration, further discussion was deferred until the next meeting. Of the other committees of the Royal Horticultural Society it is admitted that, as a rule, they can proceed to the making of awards more safely, as generally

enterprise in some quarters would, doubtless, rise up in opposition to such a proposal as that I have put forward. Still, it is a matter worthy of consideration. The jobbing gardener, whether he is working on his own account or is sent out by a local florist, is useless in the way of making suggestions to villa residents. His range of knowledge is limited, he is destitute of imagination, and his powers of observation are practically nil. He has no eye for the overgrowth of shrubbery, he makes no suggestion for keeping shrubs and trees within due bounds; they lose their ornamental character, and become a nuisance to a neighbour who prefers to have an abundance of light and sunshine flooding his garden, and imparting health and vigour to his plants. There is no desire to exclude shade; shade can be enjoyed in due proportion if shrubs are intelligently pruned as they should be, and trees kept within due bounds. In the neighbourhood in which I reside, the self-sown Sycamore has become a perfect pest. It is allowed to grow to a great size, and its rapid development elbows out of existence many a charming shrub that should be an object of beauty. R. D.

BULLFINCHES IN THE GARDEN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have read the correspondence in your valuable paper about bullfinches in the garden, and think some of the correspondents know little about the ravages of these birds amongst fruit trees and choice flowering shrubs. It would be well to know how many really practical fruit-growers praise these birds. I am a lover of birds, and preserve and feed insect-eating birds, but when any bird becomes a danger to a great industry like fruit-growing, etc., its numbers should be reduced. The bullfinch and sparrow have now become a great danger, and we who love our home-grown fruit and our flowering trees and shrubs should try and reduce them.

Now I would like to ask "A. W. L." two or three questions for the sake of thrashing out this vexed question in a practical way to the benefit of fruit and flower growers. First, is "A. W. L.'s" garden in a wooded part of the country; second, is paraffin and soft soap a preventive in showery weather, and how would the buds of a 30 feet or 40 feet tree be moistened with this mixture; third, does "A. W. L." favour fruit culture or bullfinches? I have tried paraffin and soft soap and many other so-called remedies, and during the time the buds are on the move they have all failed, except the gun, and if "A. W. L." is an advocate for British-grown fruit he will find more music in the gun than the piping of the bullfinch, should he have a fruit garden in a wooded district.

Berks.

TOWNSEND.

APPLES AND THEIR CULTIVATION.— TREE PLANTING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Great Britain, in the present stage of many of its productions, is a country of "samples"—the very weather is thus popularly designated. Standards of quality are conspicuous by their absence. Wheat of English production is sold on "sample." To make up for the deficiency in this respect, we apparently try to remedy the evil by habitually planting "standard" Apple and other fruit trees, and thus again court disaster. "A. D." writes, on page 176 (March 25): "I trust it will always be the endeavour of all who have the interest of our home Apple supply at heart to deprecate the planting of standard trees." My own words, recorded on page 156 (March 18 issue), are: "Or the drawback is that standard trees are planted, which is a complete mistake in all circumstances, except for Cherries for market and in the form of fruit trees generally along highways." In your issue of April 8, pages 101 and 102, appears a letter from Messrs. H. Cannell

and Sons on the subject of Apples generally, but coupled with the expression of high esteem in which they justifiably hold the Gravenstein. I consider Messrs. Cannell as the pioneers among our fruit tree growers in respect of the Gravenstein, in favour of which I have previously not heard an adequate judgment expressed by nurserymen. Yet it is an Apple that should, if gathered from suitable soil conditions, to which Messrs. Cannell refer as essential to success, rank hardly less high in its season than Cox's Orange Pippin. The place of origin of the Gravenstein is about 53° N. latitude, in Northern Germany (near Hamburg), and it should therefore do well anywhere in these isles. It became known about seventy years ago, since when it has risen to be the most appreciated Apple in Germany. It figures in every Belgian and French catalogue under very eulogistic terms as to quality. Canada has sent us, for a couple of decades, many thousand barrels of Gravensteins annually, arriving from the middle of October. But as to flavour, the Canadian product is less desirable than the home grown, however highly coloured the former is. I quite agree with Messrs. Cannell in that I prefer to apply my teeth to the Gravenstein direct from the tree in the second half of September. I find the Gravenstein is not surpassed by any Apple until Cox's Orange Pippin assumes its sovereignty by the end of October.

Messrs. Cannell's reference to the desirability of a closer determination of the most meritorious Apples in this country, as is done in countries that beat our own supplies, is most opportune. If we were simultaneously practising what Mr. Engleheart recently pointed out and what Mr. A. Dean also emphasised, as to cross-breeding of suitable varieties, we might within another generation raise the standard of our Apples altogether, would oust our numerous "samples," and make for a "standard." The British Isles are the target of so much varied foreign produce, dumped by the whole world without hindrance. Let us try and establish one really wholesome standard, at least, in the supremacy of our Apples, for no country is more blessed by climate than these Isles are, whatever croakers may say, who, as is facetiously observed, insist that our apology for climate is incapable of rising beyond a supply of "baked Apples." Such pessimists habitually make the supreme mistake in not selecting a "site," but allowing the commanding question of meteorological influences to be a negligible factor, whereas the comprehension of this element means success for one attending to its manifest teachings, when ninety-nine fail chiefly for no other reason.

This country would be capable of a vast export in surplus Apples to less favoured regions of the European Continent if the right methods for exploitation of the actual conditions were adopted. If the proper selection of site is made; and at the relatively moderate price of the day the freehold is bought, as it can be, young trees planted are cheap, and forthwith grow into money! Where is the risk, except that of bad management? While a house is no sooner built and completed than it begins to crumble, a tree constitutes true wealth; and that does not refer merely to fruit trees, but to forest trees also. There is not one true forest in these entire isles, and the nation wastes fifty millions sterling annually as the consequence.

Kent.

H. H. RASCHEN.

OWN ROOT ROSES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The dismal account of the result of trials of own root Roses quoted in your first article of the issue of the 13th ult. is rather a blow to me after getting a considerable number of own root Roses on the advice in "Roses for English Gardens" to plant own root Roses on light soils in preference to budded plants. I trust some other growers may give your readers the other side of the question. H.

THE FLOWER GARDEN.

OUTDOOR CHRYSANTHEMUMS.

PLANTING EARLY-FLOWERING VARIETIES.

THE appearance to be a natural tendency to commence planting the early and semi-early garden Chrysanthemums outdoors at far too early a date. This almost feverish haste, in some instances, to begin work in the middle of April seldom gives results so satisfactory as those which follow a later planting. The only plants that should be taken in hand early are the old ones. Plants of this kind during March and April are not infrequently represented by sturdy-looking tufts of growth of the hardest character. They should be divided as early in the season as convenient, and before the recently developed growths have made too much progress. Old stools that are to be divided, if left too long before being taken in hand, give some trouble. The early-flowering garden Chrysanthemums are now often described as "hardy," and this descriptive term is a perfectly true one as regards most of the sorts catalogued to-day. A few do not winter outdoors satisfactorily. The plants differ considerably in the character of their growth. Some of the old stools break up quite easily, one root often providing sufficient stock to make quite a large bed of the one sort. An old and excellent type of plant, that divides with the greatest ease, is that represented by Mme. Marie Massé. This plant having sported so frequently, it is now possible to make quite an interesting series of colours from its offspring. Numerous sucker-like growths are developed on an old stool, and each growth may be detached with the greatest ease. Divided portions of plants that have been left out in the open borders during the winter may, of course, be broken up and planted in the earlier days already referred to.

In the case of plants raised in the orthodox fashion in the late winter or early spring, in heat, it would be most unwise to begin planting until about the middle of May. At the time of writing (early May) the wind has been blowing a gale the greater part of the last few days, and plants raised this season, if planted outdoors, would be quickly denuded of their somewhat brittle foliage.

The practice of trade growers of potting up the plants in the early spring, and when executing an order sending the plants in pots, or shaken out and carefully wrapped up as an alternative, is now superseded by a newer and simpler method. Plants of the early kinds, when grown in pots, seldom seem to make the progress one might reasonably expect them to do. This may be attributed to their more vigorous root action possibly, in which they appear to resent the cribbed and confined treatment in pots. Trade growers in many instances now plant their rooted cuttings in cold frames. This begins in March, and the young plants appear to revel in the freer root action and the more natural conditions thus afforded them. They are not crowded in the frames, and each one is planted rather firmly. Unfavourable climatic conditions can thus be guarded against. During spells of frosty weather, or when cold and boisterous winds prevail, a partial closing of the frame-lights may afford all the protection that is necessary, and the latter may be entirely removed when none of these troubles are experienced. In this way plants of an ideal character, with well-matured growths, are prepared in readiness for transference to their flowering quarters.

If the plants are in one's own garden they may be lifted with a good ball of soil adhering to the roots of each one, and placed in their permanent quarters with comparative ease. Unless plants of one's own raising are thoroughly hardened off, it is better to defer planting until that is satisfactorily accomplished. The same remarks apply to plants that have been purchased; the want of hardening off is clearly denoted by the pale character of their growth.

Assuming that the plants are ready for transference to their flowering quarters, the grower must satisfy himself first of all that the latter are also quite ready to receive them. The early-flowering Chrysanthemums are not in the least fastidious as to position, and will succeed in almost any aspect where they can obtain a fair amount of sunshine. The plants should not be arranged too near tall trees and shrubs, as they become drawn and weakly. Beds and borders in an open, sunny position, where they can be sheltered from strong winds, may be regarded as ideal. Large beds of one sort, or two or three kinds arranged in association for colour effect, are best. There are now many early kinds bearing blossoms of almost every warm tone of colour imaginable. Beds of one colour, or a series of them, so planted that there may be a proper sequence of colour, make a delightful picture. Japanese varieties now largely preponderate, and as the form of their flowers is most varied in its character, they are the more favourably regarded. Habit of growth, too, in their case is also so much better than it used to be. The plants of the better kinds are bushy and branching, and plenty of space should be allowed to each one. The Japanese sorts should be planted 3 feet apart each way, and if the standard sorts be selected the intervening spaces between the plants should be well filled with branching growths before the season of flowering is over. The Pompon kinds will be satisfied with less space. Some of the smaller varieties may be 2 feet apart each way, but a more general rule, and, on the whole, a better one, is to allow 2½ feet between the plants.

Grouped in beds by themselves, and planted with a proper regard to their respective heights, the Pompons are striking and effective. Massed in groups here and there in the hardy border, too, they look well. Avoid crowding at all times. Isolated specimens of some of the better branching plants are very pretty when in full blossom. During September and October nothing looks better in the landscape than bold groups. Yellows, orange, and crimson Japanese sorts now abound, and of each of these colours there are numerous intermediate shades available.

Plant in soil that is not very rich, as heavily manured ground promotes growth of too coarse and vigorous a character. If a collection of plants can be allocated in a special quarter of the garden, plant them in rows, keeping the Japanese kinds together and the Pompons to themselves. Do not pinch the plants to induce them to make a bushy style of growth. Pinching the outdoor plants is a mistake. Do not disbud the plants except in a few special cases where the buds are on short flower-stalks, or where the cluster of buds is too dense.

Highgate, N.

D. B. CRANE.

MAY TULIPS AT KEW.

At the present moment one of the most beautiful features in the Royal Gardens, Kew, is the massing of May-flowering Tulips

in front of the Palm house. The display is a striking one, and an object-lesson in the use of a class of bulbous flowers which we cannot have too much of at this season.

THE ROSE GARDEN.

ROSE LADY ROBERTS IMPROVED.

SOME market growers have obtained a deep-coloured form of this lovely Rose. If so, and they can maintain the improved colour, the demand for the cut blooms will be great. When grown in strong heat there is no more exquisite Rose than Lady Roberts, and all florists and those who have demands for cut bloom would welcome this improved form. There can be no doubt that selection is as possible among Roses as among other things, and I should say especially would this be so among sports. I think it has never been denied that Lady Roberts was a sport from Anna Ollivier, as I believe the same may be said of Mme. Hoste. Growers, especially those

its blossoms as freely as the old favourite Gloire de Dijon, from which it was obtained by crossing with Mrs. W. J. Grant. P.

WORK AMONG THE ROSES.

MAY is the most anxious month of the year for the rosarian. The plants promise so well, and suddenly a spell of cold east and north-east winds makes them appear miserable. We cannot alter the weather, but we may assist our plants to withstand the trying ordeal, and one of the best aids is

Hoeing.—This must be carefully done, not merely to check weeds, but as much to allow air and warmth to penetrate into the soil. Without going into the scientific explanation concerning the usefulness of hoeing, the amateur may take it for granted that to keep a good loose surface is one of the best aids to successful cultivation. If possible use the push hoe, so that the soil is not trodden upon after the operation.

Thinning the growths should be attended to at once where there is an over-abundance of shoots. Do not be too rash and take away a quantity all at once; do the work gradually. Some bush

plants and standards produce a lot of little weak shoots in the centre of the plants. Rub these off and any others that seem to be crowded. If amateurs would cut away in the autumn all the old wood, retaining merely that made during the current summer, they would have far greater success with their plants. It is not necessary that a Rose plant should carry a great number of shoots. If there are two or three growths that were produced last summer, and each of these bears two new shoots this season, they are quite enough for one plant to bring to perfection. If the beds appear too thin by adopting this method, then closer planting should be aimed at in the future.

Green fly has become very troublesome lately. We find it a good plan to take a soft brush and go over the plants, drawing the brush

gently over those shoots infested with the fly, then in the evening syringe with paraffin soap solution, using 4oz. of the soap to a gallon of soft water. Shoots that can be immersed in the solution will be thoroughly cleansed of the aphids.

The Rose grub or maggot can only be dealt with by hand picking or squeezing the leaves. Usually the culprit is in the top leaves that are fastened together. A diligent search should be made at least twice a day.

Liquid manure should be given once a week to Rambler Roses of all sorts, whether on walls, poles, tree stumps, or pergolas, but the Hybrid Perpetuals, Hybrid Teas, and Tea-scented, if they had a dressing of manure after pruning, can wait awhile before they receive the liquid manure. It is not well to give stimulants too early. If a convenient corner can be found for a heap of cow manure, and a hole dug in close proximity, the difficulty of obtaining liquid manure is solved, as the drainings from this heap stored in a tub and given half strength will supply good food for the Roses. Roses planted this spring that were not in pots should have the soil trodden firm. P.



GROUPS OF TULIPS IN FRONT OF THE PALM HOUSE AT KEW.

commercially interested, should mark any especially high-coloured blooms of Lady Roberts, Bridesmaid, Liberty, &c., and propagate from the shoots upon which such blooms are produced. Repeat this for a few seasons and I imagine an improved strain would be obtained of many of our forcing Roses. P.

ROSE ENGLAND'S GLORY.

THIS Rose is proving to be a real acquisition, and is by far the best climbing pink variety, either under glass or outdoors. When I say best I mean as far as quality of blossom is concerned. The flowers are deep and handsome. I always find such Roses do not require strong stimulants. Give them good loam and occasional waterings of liquid cow manure and soot. For culture under glass there is another lovely pink, none other than a climbing sport of the fragrant Mme. de Watteville. This variety, however, is rather too tender to grow outdoors, unless in the southern counties. England's Glory will be a valuable Rose for growing as a standard, and it produces

NEW AND RARE PLANTS.

A NEW PRIMULA FROM CHINA.

A DISTINCT variety of the well-known garden plant, *Primula japonica*, called *Pulverulenta*, was recently shown by Messrs. James Veitch and Sons, Limited, Chelsea.

It is one of the plants newly introduced by them from Western China. The flowers are crimson, and the stems are heavily covered with a white powder. It is a showy, free-flowering plant, with leaves not unlike those of *Primula denticulata*. It received an award of merit from the Royal Horticultural Society on the 9th ult.

EDITOR'S TABLE.

MAY-FLOWERING TULIPS.

Messrs. Wallace and Co., Kilnfield Gardens, Colchester, have sent a representative gathering of May-flowering Tulips, comprising many of the best Darwin and Cottage varieties, and showing well the wonderful range of colour now obtainable. Some of the finest in a splendid gathering of these flowers were *Flame*, glowing orangered; *King Harold*, a finely-formed bloom, rich dark crimson with blue-black centre; the sweetly scented *Didieri alba*; *Marguerite* and *Clara Butt*, both illustrated recently by coloured plates in *THE GARDEN*; *Primrose Gem*; *Orange King*; *Phyllis*, small, silvery rose; *Negro*, small, very dark; *Maid of Honour*, cream ground, splashed and striped with deep rose; *Inglescombe Pink*, rose; *Caledonia*, bright red with greenish black centre; *Jaune d'Œuf*, yellow flushed with rose, green centre; *Scarlet Emperor*, bright red with yellow centre; *Zephyr*, pale purple; *Sunset*, bright yellow with red markings at the margin (very striking); and *Gala Beauty*, deep yellow, heavily marked with dark red.

FORGET-ME-NOT WITH DOUBLE FLOWERS.

Miss Pelly sends from Eridge in Sussex a *Forget-me-not* with double flowers, evidently pieces of a form of *Myosotis alpestris*, which is known by the name of "*Victoria*." The habit of the plant is very compact and bushy, whilst the main flowers are nearly all of a double character. The two plants are evidently seedlings from a plant that was there the previous year, as this form reproduces itself true from seed.

It is frequently seen in gardens, and is well worth growing for its distinct and interesting appearance.

VANDA TERES AND DENDROBIUM FALCONERI.

Mr. Lovett, The Gardens, Lilburn Tower, Alnwick, sends for our table flowers of remarkably rich colouring of *Vanda teres*, with the following

with upwards of 200 blooms on it, growing on a Fern stem 8 inches long, and a photograph of *Dendrobium thyrsiflorum*, in an 8-inch pot, carrying thirty-two spikes. The plants are grown together in an ordinary plant stove. The *Dendrobiums* are rested in a cool house, and only sufficient water is given to keep the plants from shrivelling during the resting season. *Vanda teres* is kept in the stove (except when in flower), and syringed twice a day during the growing season, and, like the *Dendrobiums*, it receives little water during the winter months. I make up my baskets of *Vanda teres* after flowering, and use nothing but sphagnum moss, a few broken crocks, and charcoal." The photographs show how well Mr. Lovett grows his plants, but, unfortunately, they are not suitable for reproduction.

RHODODENDRON LADY ALICE FITZWILLIAM.

Mr. H. J. Clayton, The Gardens, Grimston Park, sends flowers of the sweetly-scented *Rhododendron Lady Alice Fitzwilliam*, with the following interesting note: "Amongst the many varieties of greenhouse *Rhododendrons* made available for greenhouse decoration during the past, say, thirty years, few, if any, are more valuable than the above-named variety. It is not a plant of satisfactory growth, and its flowers are of a somewhat fleeting nature. I am enclosing a few sprays cut from a plant growing in a 12-inch pot, which has about eighty flowers open. Some have been cut and some have fallen. They have a most delicious scent. Beyond seeing that each plant does not suffer for water the cultural requirements are not excessive. For soil we use a mixture of two parts tough peat to one of loam in nodules, with the loose part riddled out, and a good sprinkling of Bedford sand, being careful to mix the whole well together before using. Good drainage and firm potting are essential. If the soil is kept fairly sweet there is no necessity for frequent re-potting. We find a sprinkling

A NEW PRIMROSE FROM CHINA—PRIMULA JAPONICA VARIETY.

(Shown by Messrs. J. Veitch and Sons, Chelsea, on the 9th ult., and given an award of merit.)

note: "Two spikes of *Vanda teres*, cut off the basket, of which I enclose a photograph. The basket was made up two years ago, some of the growths are over 4 feet long, and there are eleven flower-spikes, twenty-seven expanded blooms, and seventeen buds to open. I also enclose a photograph of *Dendrobium Falconeri*,

of Standen's manure given, say, twice or three times during the growing season to be very beneficial after the pots are full of roots. Our plants are grown along with the *Azaleas* all the year round, being put out of doors for a time in a sheltered place as soon as the bloom-buds for the following year's flowers are formed.



GARDENING FOR BEGINNERS.

SIMPLE HINTS.

THINNING GRAPES. — This most important work in Grape growing needs carefully performing; otherwise, instead of improving the shape of the bunch and size of the berries, the opposite will be the result. The two accompanying illustrations show the appearance of a bunch of Grapes before and after thinning. The first thing to do in proceeding to



BUNCH UNTHINNED.

thin the bunch is, if necessary, lightly to loop up the upper berry stalks, or "shoulders," as they are termed. It is only in the case of loose-growing bunches, characteristic of some varieties, that this is necessary. First remove all the small seedless berries, for these will never develop into full-sized Grapes. Next remove berries where they are too thickly placed, taking care to leave those that will give a good outline to the bunch. Most of the berries inside should be cut out, for they have not such a good chance of ripening and developing the best flavour as those more favourably placed. It is difficult to say how far apart the berries should be after thinning has taken place, but, generally speaking, half an inch would be correct. Such sorts as Alicante and Madresfield Court need more severe thinning than Black Hamburgh for instance. It is usually necessary to go over the bunches a second time finally to regulate the distance between the berries.

Avoid Touching the Bunches with the head or hands. In thinning the bunch must be held by means of a thin forked stick (the fork pressed against the stalk of the bunch) with the left hand, leaving the right hand free to hold the scissors. If the stick is gently tapped with the

scissors the remains of the stamens are shaken out, and the worker is able to see clearly what should be done. Some care is needed to keep the head and hands away from the berries, but this is a matter not to be overlooked, or the berries will be rubbed and permanently disfigured.

The Cucumber Frame.—Those who have a spare frame may grow a few Cucumbers through the summer without any very elaborate preparations in the way of heat. There must, of course, be some heat to start the plants, but a moderate hot-bed will suffice. Cucumbers are very often planted in stuff of too light a character. To obtain sturdy, robust growth and plenty of fruits plant in turfy loam enriched with a little old manure. Keep the growth thin; top-dress lightly from time to time to encourage the surface roots; and pinch all shoots one leaf beyond the fruit. In the management of Melons the old leaves are important, but with Cucumbers an old leaf or two may be removed if required, as young leaves are soon developed. Ventilate a little early in the morning, and close with a sprinkling at four o'clock in the afternoon.

Wall Fruit Trees.—Probably more crops of fruit are lost from trees grown against walls through the roots getting dry than from any other cause. After a few showers of rain the amateur satisfies himself that the wall fruit trees do not need watering, but the fact is that rain does little good to trees trained against walls, for no great quantity ever reaches the roots. It is prevented from doing so by the leaves and shoots, and probably also by the overhanging coping of the wall. It is, then, most important to see that wall trees are thoroughly well watered, whether the weather is dry or showery. At the present time, when the fruits are small, they are especially liable to fall if the roots are allowed to become dry.

Importance of the Preparatory Work.—Filling a geometrical design with a few kinds of plants is now occupying many hours of the gardener's time, and, though bright and showy in its season, it is not the most interesting kind of gardening. But before any general collection of open-air plants can be well grown we must thoroughly understand the importance of preparing special sites for certain plants, so as to give them a chance of doing their best. To mention only a few things, Roses must have a deeply-worked and manured soil.

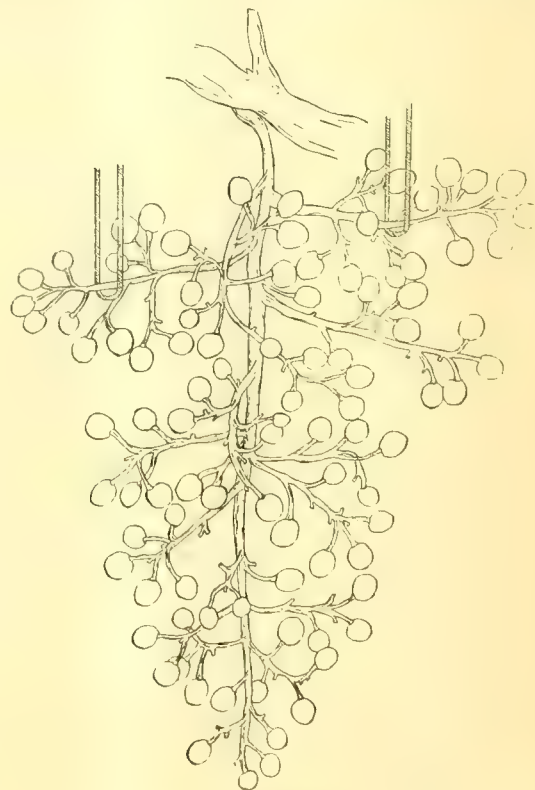
There must be Free Drainage.—The best soil for Roses is an adhesive loam, which generally occurs on a clay base, but the clay must not crop up near the surface, or, if it does, some of it must be removed. Some years ago I made a Rose garden in Sussex, where the natural soil was blue gault of the stickiest character. After the beds were marked out the clay was dug out 3 feet deep. A deep drain was run through the centre of the garden, with a branch drain to each bed. The beds were then filled in with good loam and manure, and the result was splendid success.

Some Little-known Bedding Plants.—Balsams are not much used as outdoor subjects, yet they

are more effective outside than under glass. They must be raised under glass, as they are tender subjects, and, when well established in small pots, they should be hardened off early in June and planted out in good soil. The best way of using them is to plant 3 feet apart over a ground-work of some contrasting plants of dwarf close habit. I have had Balsams 3 feet high in perfection.

Gibson's Castor Oil Plant.—This has dark bronzy foliage, and is very effective in sheltered places, especially against a background of dark-leaved shrubs; planted thinly over a bottom growth of silver-leaved Geraniums the effect is striking. A broad band of *Viola cornuta* outside will heighten the effect. This *Viola* was formerly used a good deal. It is an early spring-flowering plant, but when planted late in April or May it will continue to flower all the summer.

Salvia patens.—What a lovely plant this makes at this season in a good-sized pot in the conservatory! We started with a strong root in January, and as the growth advanced the plant was shifted into a larger pot until it occupied one 8 inches in diameter. Quite a number of young shoots started, and these were stopped all round once and the shoots used as cuttings.



BUNCH THINNED.

Having plenty of pot room and otherwise well nourished a good development was reached, with numerous spikes of its bright sky blue flowers. This *Salvia* is quite as well worth growing in a pot, if well done, as most other things which are not so effective, and, besides, more blue flowers are wanted outside. A few strong plants will be

useful later in producing seeds, which, if sown early, will make flowering plants in one season, though not, of course, equal to stronger plants.

Where to Plant Violas.—Violas dislike a warm, enclosed position. Unless they have a certain amount of shade and moisture, and plenty of air, they will become of straggling growth, and the flowers will be poor and not numerous. The value of the Tufted Pansies or Violas lies in their tufted habit, but this disappears unless they are given a suitable position to grow in. Let them get the morning or evening sun only if your garden is small and enclosed by walls, for if they are planted near the latter in a warm aspect they are almost certain to become untidy, straggling, and practically flowerless. They need a fairly rich soil so as to flower well and late. In poor soil the plants become too exhausted to flower any length of time.

The New Golden Elder (Plumosa aurea).—Those who want golden-tinted foliage in the garden may give this a trial. Young plants set out thinly among dark-flowered Heliotropes will make a striking mass. I paid a guinea for the first half dozen plants several years ago, but they are cheap now. It strikes freely from cuttings of the ripe wood in autumn, and, if helped on in heat in spring, the cuttings rooted in autumn will be large enough for use in May and be in full colour.

Celosias as Bedding Plants.—In warm, sheltered spots the feathery Cock's-combs (*Celosia plumosa*) will make charming groups. They will come in very well after the late Tulips, when the soil has been renewed and made suitable. The Cock's-combs must, of course, be raised in a warm frame, and be thoroughly established and hardened off before planting out about the second week in June. There is much variety in colour, but the yellow, in the dearth of good yellow flowers, will be charming.

Salmon-tinted Geraniums.—We want more neutral-tinted flowers in the garden and fewer scarlets, heliotropes, whites, and pinks. Some of the salmons we have tried are Cassiope, Ian Maclaren, Mrs. Pole Pruth, Mrs. A. H. Needs, and Gotha. The last is rather new, but the others are old sorts, and, besides being useful in the garden, they make good pot plants in the conservatory. Turn out good plants, and give them room enough.

Tricolor Geraniums.—These have had their day, but those who want a change may do worse than have a bed of them in mixture with *Viola cornuta*. I have used them in this way. The Violas were pulled to pieces in April and planted somewhat thickly, leaving vacancies 1 foot apart for the tricolor Geraniums at the end of May. The same idea may be worked out with other plants. Red Geranium Rob Roy or any good broad-petalled zonal variety, planted thinly over *Koniga maritima* or any low-growing contrasting plant, will be a change.

About Potatoes.—The Potato boom is over. Never again during the present generation will such fabulous prices be obtained. If there is a better early Potato than the Duke of York I have not yet seen it, and it is as good for frames as for outside. I remember the time, in the early forties, when Potatoes were sold at 1s. a bushel. That was just before the dreaded fungus appeared. Now the price is very low. I have bought good Potatoes recently at 2s. a bushel. This does not leave much margin of profit for the growers, but heavy-cropping varieties are grown now. I do not think the quality of Potatoes is equal to the Lapstones, Flukes, and Rough Reds we used to grow in the past. Nobody seems to grow the Regents now. We are going in more for weight and disease-resisting quality than flavour.

GARDENING OF THE WEEK.

FLOWER GARDEN.

BEDS that have been devoted to winter and spring bedding must now be cleared, and preparations made at once for refurbishing them for a summer and autumn display.

ANNUALS AND BIENNIALS must be thrown away, unless a choice strain or some special trait makes it desirable to save seeds, in which case they should be carefully lifted and transplanted, shaded, and watered, and every care taken to avoid a serious check until the seeds are ripe.

BULBS, as Hyacinths, Tulips, Daffodils, &c., that are not quite ripe may be lifted and laid in a slightly shady place, and kept fairly moist until the foliage matures and falls. Then they must be harvested and duly stored away until autumn. If not considered good enough for bedding another year, they will be acceptable and useful among shrubs in the wild garden.

PERENNIAL PLANTS should be divided and planted in good soil in the reserve ground, and well attended to as regards watering and other details until growth is again active. It is on the present season's growth and maturity that the next spring's display of bloom mostly depends. Cuttings of some may also be put in now, which with ordinary care will be found useful in renovating the stock, but for propagating the main stock it is too early for most, as the growth is soft and sappy.

DWARF CONIFERS AND SHRUBS that have been in beds through the winter and spring months must be thoroughly soaked, if dry, before lifting and removal, to ensure as much soil as possible adhering to the roots. Replant without delay in holding soil in a part of the grounds set apart for the purpose. Plant at varying distances apart, according to the size and habits of the different varieties, allowing ample room for their free development, and for air and sunshine to play around each. They will need constant attention in syringing, watering, and mulching until the roots take possession of the fresh soil. Having the beds thus clear, thoroughly clean and cultivate, enriching with well-rotted farmyard manure or a good artificial manure, according to the requirements of the various plants destined to occupy them, and bearing in mind that the preceding crop was a most exhausting one.

Should the soil be of too heavy a nature for some of the delicate plants employed in the summer bedding arrangements, the present will be a favourable time for adding leaf-mould, potting-bench refuse, road scrapings, or whatever suitable material is available, incorporating thoroughly with the staple soil. By the time these preparations are complete, let us hope the weather will be favourable for the general planting. Of late the wind has been keen (easterly), with parching sun, anything but ideal for the hardening and planting of tender plants.

The Gardens, Tan-y-bwlch, North Wales. J. ROBERTS.

ORCHIDS.

DENDROBIUM WARDIANUM.—It is now nearly fifty years since plants of the beautiful *Dendrobium wardianum* were first imported into this country, and during all these years it has been a rarity to see a thoroughly established plant producing such fine flowers as are nearly always seen upon the new bulbs the first year or two after importation. By an established plant I mean one which the grower has been successful with for five or six years, and which accordingly produces annually fine strong bulbs and large flowers. I am aware that there are some gardens wherein this *Dendrobium* is grown very well, but unfortunately they are very few. It is now cheap, and cultivators are given a fine opportunity to experiment. Probably the greatest mistakes we have made concerning the culture of this species have been in affording it a high temperature and too close an atmosphere, which have produced growths unable to bear the least check, and quite incapable of producing strong flowering pseudobulbs. I would advise growers who hitherto have been unsuccessful to try several plants in the cooler divisions, preferring the cool greenhouse or conservatory instead of the Odontoglossum house, the atmosphere of which is probably too damp for the young tender growths. I would also suggest a light position in the intermediate house, where the atmosphere is always fresh and airy.

THUNIAS.—The following Thunias are now in bloom: *T. Marshallii*, *T. Bensonii*, *T. brymeriana*, *T. veitchiana*, *T. alba*, and *T. candidissima*. As soon as the flowers open arrange the plants in a cool dry part of the Cattleya house, where they will last in beauty for some considerable time. After the flowers fade place the plants in a cool airy place in a greenhouse, where they will receive uninterrupted light; this will assist to ripen and mature the current season's growths. They will also ripen up well in a vinery where the Grapes are colouring, providing the vine leaves are not too dense. They will want an occasional watering at the roots as long as the leaves keep green, but when they commence to change colour it should be gradually withheld. Those plants that have missed flowering and are growing to an unreasonable length should be treated the same as those that have bloomed. Plants of the useful winter-flowering

CELOGYNE ORISTATA and its varieties are now pushing freely both root and leaf growth. Before the shoots make much progress it is advisable thoroughly to free the old leaves from brown scale to which they are subject. Afford the plants plenty of water at the root all through the growing season. Although moisture-loving plants at

the roots, they do not thrive in a stagnant atmosphere, nor too much heat. The cool part of the intermediate house is the best place for them. The warm-growing *Cecologyne asperata* (Lowii) and *C. pandurata* are both flowering together with the young growths. Both plants should be kept well supplied with water at the roots until the growths are fully matured, and they should always be well protected from strong direct sunshine. *C. dayana* may now be afforded fresh rooting material and larger hanging pans if necessary. It grows best when suspended from the roof in the intermediate house.

Burford Gardens, Dorking.

W. H. WHITE.

INDOOR GARDEN.

AZALEAS.—The earlier plants having completed their growth, if the temperature of the house has not already been lowered, it should be done without delay preparatory to standing the plants outside. Some growers prefer keeping their plants inside all the year round, but I think if a sheltered position can be found for them outside the growths ripen better, and, consequently, flower more freely the following year. There is no more suitable place for them than a skeleton frame, where the blinds can be rolled down for an hour or two during the hottest part of the day. The plants flowering in the cool house are almost over. Pick off seed vessels, and encourage growth by syringing and closing up the house early in the afternoon.

FORCED TREES AND SHRUBS.—These may now be arranged in the plunge beds of ashes for the summer. Syringe the plants morning and evening during dry weather. Any weak or sickly plants, if considered worth it, can be planted out in the reserve garden for a year or two. It often saves considerable time and trouble to throw them away, buying in a few each year to keep up the stock. *Azalea mollis* can be bought so cheaply it is scarcely worth keeping the plants for forcing again. Planted out in the reserve garden for a year or two they will be found very useful for planting in the pleasure grounds.

NERINES.—Withhold water gradually as the leaves turn yellow. Give abundance of air, placing them on a shelf exposed to full sunlight, or in a south frame where the lights can be removed on all favourable occasions. Nerines do not require potting very frequently. When necessary it should be done just previous to flowering.

LIRIOPE SPICATA VARIEGATA.—This is a very useful plant for furnishing. Now is a very suitable time for dividing and repotting the plants. Unless large plants are required, 5-inch pots will be found the most useful size. Use a compost of three parts fibrous loam, one of leaf-mould, and plenty of sharp sand. Place in an intermediate house, and keep shaded for a few days.

GENERAL REMARKS.—Prick off seedling *Primula sinensis* into trays when large enough to handle. Place them in an intermediate house or pit near the glass. Cyclamen are growing freely; pot on into 5-inch or 6-inch pots according to size. Use a compost of loam, leaf-mould, dried cow manure, or Thompson's Plant Manure, and sand. Keep the corm slightly raised above the surface of the soil, or when watering it is apt to cause the young leaves and flowers to damp off. Insert cuttings of *Salvia splendens* for flowering in 6-inch pots. Pot on specimen *Caladium* if still larger plants are required. The later flowering *Epacris* are breaking freely; finish any repotting necessary without delay. For autumn and early winter flowering insert a few cuttings of white and yellow *Marguerites*. Continue to pot on such things as *Bouvardias*, *Lantanas*, and *Fuchsias*. An early batch of each may be allowed to flower.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

LATE STRAWBERRIES IN POTS.—If there is to be no break in the supply of fruit between the indoor and outdoor crops, much care will be necessary in timing the last batch of plants in pots. There is always a big demand for fruit at this time of year, and very often there is a blank between the two crops. No effort should be spared to further the success of this batch, which is one of the most valuable of the whole season. Nothing is better than a cold frame, in which the pots should have been plunged in leaves. This will considerably reduce the necessity of too much watering. These plants may carry ten or twelve fruits, and finish them perfectly. Each truss of fruit must be properly staked, so that there will be no danger of breaking. Do not expose the fruits to the direct rays of the sun, but leave them partially shaded with their foliage, which will greatly facilitate swelling. *La Grosse Sucrée* and *Waterloo* are very suitable varieties for this purpose, the latter producing very handsome fruits when well grown. Young plants from which the early runners for forcing are to be obtained should have their flowers removed and be mulched with short litter. Give them plenty of water if the weather continues dry.

THE ORCHARD HOUSE.—The final thinning of Peaches and Nectarines and other stone fruits must not be delayed when stoning is finished. Guard against overcropping, which is a mistake in the culture of fruit trees in pots, and is sure to cause disappointment. The trees will now need copious supplies of water at the root. Diluted liquid manure and *Le Fruitier* may be given frequently. Mulch the pots with some rich material, and encourage the fruits in every way to swell freely. The syringe must be freely used morning and afternoon. Occasionally syringe the trees with soft soapy water to keep them clean. Should aphids become troublesome, fumigate lightly with *XL All*. Thinning the growths and pinching will need constant attention, especially where strong shoots are taking the lead. Cut back all fruitless branches to the first growth.

MORELLO CHERRIES.—Unlike other varieties, the Morello cherry produces its fruit on the previous year's growth, its growth and training being identical with that of the Peach. The trees are well adapted for training, and will amply repay the attention bestowed on them. Sufficient of the best-placed shoots should be selected, and carefully tied in. Avoid overcrowding, as this tends to a general weakening of the tree, and is prejudicial to obtaining crops of fine large fruits. The Cherry is very subject to the attacks of black fly, which are very destructive, and hard to dislodge when fairly established. Tobacco water is an effective remedy when applied in time. See that the trees are well supplied with moisture at the root.

NEWLY-GRAFTED TREES.—The clay must be removed from trees which are making good progress, and the ties loosened. The grafts must be again retied and supported with stakes, which should be firmly secured. Rub off all growths from the stocks as they appear. **E. HARRISS.**

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

BROCCOLI.—Sowings of Sutton's Standwell, Late Queen, and June Monarch should now be made. Here the two first-named varieties have kept up a constant supply all through May. The heads, though not of any great size, have been faultless in colour and of excellent flavour. June Monarch is now turning in, and promises to maintain its well-earned reputation as a late Broccoli. Seeds of these three varieties were sown, not very thickly, at this date last year on an open border. The young plants, as soon as they had developed two or three rough leaves, were slightly thinned in the seed rows; during dry weather waterings were given occasionally until they were planted out. This process took place in the first week of August, the ground chosen for the purpose being an old Straw-berry bed trenched two spits deep, and levelled and trodden before the plants were put in. Weeds were scrupulously kept down, and the surface of the soil frequently stirred with the Dutch hoe. This comparatively small amount of attention secured the above satisfactory results. Last year, by way of experiment, I at the same date made a sowing of Snow's Winter Broccoli, which under the same conditions and treatment turned in splendidly in April.

TURNIPS.—Most cooks will object to large Turnips, as experience will have taught them that such vegetables are almost sure to be hollow in the centre, coarse-fleshed, and of inferior flavour. Smaller and more delicately flavoured Turnips can easily be obtained under favourable conditions. For this purpose I find it best to make sowings of Turnips on ground that has had no manure for at least twelve months, but which has been well manured previous to this for the growing of autumn Broccoli or a similar crop. Ground of this kind, having been deeply dug when the last year's crop was cleared off, will now be in fine order for growing Turnips, and will only require to be stirred up with that invaluable article, the Dutch hoe. If this operation is performed after a shower of rain a mould as fine as meal can be obtained, and it is essential for small seeds, such as Turnips, that the mould be made very fine to ensure satisfactory germination. For the production of serviceable, sweet-flavoured, medium-sized Turnips Sutton's Snowball, though recommended as a spring Turnip, will, I have found, answer all these requirements when grown as a summer vegetable. Sutton's Red Globe is also a splendid summer Turnip, which grows rapidly to a useful size with a flavour all that can be desired. Sow the Turnip seeds sparingly and not too deep. If the weather is dry damp the soil in the bottom of the drills with a watering-can before sowing. As soon as the seedlings appear dust well with lime to keep the Turnip fly at bay.

CABBAGES.—These, like Turnips, are most appreciated when young and of medium size. A sowing of Sutton's Imperial should now be made, and these should be nicely hearted and ready to make an agreeable change early in September.

SAVOYS.—A good sowing of this useful vegetable must not be omitted at this date. Early Ulm and Green Curled are both good autumn and early winter varieties. Their compact habit will also recommend them to growers whose space is limited. **J. JEFFREY.**

The Gardens, St. Mary's Isle, Kirkcudbright.

ORCHIDS.

ORCHIDS AT FRIAR PARK.

TO describe the features of the magnificent gardens at Friar Park, Henley-on-Thames, the residence of F. Crisp, Esq., whose enthusiasm in horticulture is boundless, as is also that of his able head gardener, Mr. P. O. Knowles, volumes would need to be written. But naturally where all sections of horticulture receive such admirable care and attention, as is the case here, an inspection of the houses devoted to the cultivation of Orchids is deeply interesting, particularly so on the occasion of a recent visit. This collection is rich in many of the better-known varieties, but it is doubly interesting owing to the collection of the rarer Orchids that are cultivated absolutely for

their owner's pleasure, and their great botanical interest in particular, quite apart from their money value.

Taking, first of all, the cool house with its varied display of Odontoglossums, including many choice and handsome forms of *O. crispum*, which at the present time are making a good display. Then in pleasing contrast with these are to be seen many fine specimens of *O. Pescatorei*. Other kinds in bloom at the present time are *O. Halli*, *O. triumphans*, and the fragrant *O. Edwardii*, with its rich purple flowers showing up well against the larger blossoms of the white varieties. Other fine species and various kinds occupy positions among the Odontoglossums, the rich scarlet of the *Sophranitis grandiflora* lending a brilliancy that would be difficult to excel, while the pale yellow flowers of the many fine plants of *Oncidium concolor* are a most striking display. Here, too, are to be seen flowering in great profusion many good specimens of *Masdevallias*, prominent amongst them being that great favourite, *M. Shuttleworthii*, with its spotted contrasting sepals of yellow and rose-purple, also the very striking coloured *M. Chestertonii*, noticeable for its large, attractive labellum. *M. ignea*, too, is very much in evidence with its bright orange crimson blooms. *Masdevallias* make a most charming contrast with Odontoglossums.

Passing on to the Orchids requiring a rather higher temperature, we had the extreme pleasure of seeing the very rare *Eriopsis rutidobulbon* in perfection, the long, arching spikes carrying handsome flowers of a most distinct colour of orange yellow, with reddish purple margins; the white front portion of lip, with its deep purple spots, is a very distinct feature of this richly coloured Orchid. In the *Cattleya* range there were already in bloom fine plants of *Cattleya Aclandiae*, with its quaint greenish colouring and deep purple markings, against which the lip of bright rose shows most pleasingly. *Cattleya Skinneri*, too, carrying many fine flowers, and many others, making a fine display, with very handsome *Laelias*, *Laelia grandis* being specially delightful with its yellow sepals and petals and beautiful rosy veined, cream-coloured lip. *Miltonia vexillaria* is well represented, and few Orchids make a finer display; the free-blooming character of the genus is well brought out in the plants under notice. Coming to the *Dendrobiums*, we find *D. chrysotoxum* laden with its gracefully drooping, golden yellow flowers, making a fine display; also *D. nobile* in magnificent plants, giving a wealth of bloom which hardly any other Orchid can equal, while here also were tall-growing species of *D. moschatum*, which, with its fine yellow sepals and deep maroon blotch on lip, makes it a very distinct and worthy species. Of the many and interesting botanical specimens a very fine plant of *Pleurothallis macroblepharis* (the Gnat Orchid) claims our attention, also one of *Megaclinium imschootianum*, a curious little species with small greenish yellow flowers dotted with brown, set regularly on the flattened flower-scape peculiar to this genus; *Cirrhopetalum o'brienianum*, with pale yellow and maroon-coloured flowers, together with many other equally interesting, to give a full description of which would occupy more space than is at our command; but the whole collection is one of great merit, and one to which we hope to have the pleasure of referring on some future occasion. Too few collections are to be found nowadays, selections are the rule, the majority of collectors going in for a few genera only, while the magnificent *Saccolabiums*, *Aerides*, *Angraecum*, *Oncidium*, &c., which were the glory of old exhibitors and the admiration of everyone, are now hardly to be found. We therefore feel a double debt of gratitude to any patron of horticulture who takes up the collecting of a collection as Mr. Crisp does. In his Odontoglossum house were a few pots in magnificent growth and blossom of the European alpine Orchids, which

were very attractive, and so intensely interesting by contrast with the natives of the far countries of the south, east, and west. The very old and interesting favourites comprising *Catasetums*, *Cycnoches*, *Mormodes*, &c., have here a corner for themselves, and thrive admirably. **ARGUTUS.**

A NEW CUCUMBER.

CUCUMBER ARISTOCRAT is the latest variety to receive an award of merit from the Royal Horticultural Society's fruit and vegetable



NEW CUCUMBER—ARISTOCRAT.

committee. It was shown by Mr. S. Mortimer on the 9th ult., at the exhibition in the Horticultural Hall, Vincent Square. It is a long, rather slender and smooth cucumber, of very good shape and quality. Mr. Mortimer has since exhibited another new cucumber, called *Delicacy*, obtained by crossing the varieties *Matchless* and *Aristocrat*. This is a shorter fruit, very dark green, and carries a splendid bloom. It has been given a certificate by the Royal Botanic Society and an award of merit by the Royal Horticultural Society.

STOVE & GREENHOUSE.

FLOWERS FOR HANGING BASKETS.

[REPLY TO "E. N. R."] •

YOUR question gives no idea of the position the basket is to occupy, hence we will deal first of all with what may be called the mechanical part of the matter, and next give selections of plants suitable for various purposes.

In order to fill a wire basket it must first of all be thoroughly lined with, if possible, large closely-woven flakes of moss, which in some districts are readily obtainable. Failing this moss, thin turves with the grassy side outward may be employed; but, in any case, the object is to form the basket into a basin-like receptacle, whose sides are sufficiently matted together to prevent any of the soil escaping. It is then an easy matter to plant the selected subjects in the prepared basket, using soil in just the same way as in potting a plant. In order to facilitate watering, the soil must be kept somewhat below the rim of the basket, and a little thin moss laid over the top and held in position by a few pegs will prevent any of the surface soil being washed off in watering. This last is, of course, a most important item in the case of hanging baskets, and, if they are not too large, a good plan is to occasionally take them down and immerse in a tub, or some other receptacle, in order to allow the whole of the soil to become thoroughly saturated. If the basket is needed for the greenhouse, or to hang in the verandah during the summer months, there is a wide choice of plants available for the purpose, prominent among them being Ivy-leaved Pelargoniums, particularly those of a more pronounced trailing habit. The zonal section of Pelargoniums, too, will flower well under such conditions; but, of course, they are without the grace and elegance of the trailing kinds, though in very large baskets they are sometimes used for the centre, and the drooping varieties around the edge. Tuberous Begonias, too, especially the looser-growing forms with medium-sized flowers, are seen to great advantage when treated as basket plants; and in an elevated position the more pendulous forms of Fuchsia have an extremely pretty effect. Besides these, single-flowered Petunias, which can be raised from seed, will flower throughout the summer; and much the same may be said of the climbing Tropaeolums of the lobbianum section. Lobelia speciosa also does well in hanging baskets, as also do the pendulous forms of Campanula and the popular Creeping Jenny.

For a moderately shaded greenhouse Achimenes are very beautiful when grown in this way, and, where the degree of humidity is sufficient for their well doing, Ferns make delightful basket plants. A few of the best for such a purpose are: Adiantum affine cristatum, A. amabile, A. cuneatum grandiceps, Davallias of sorts, Goniophlebium subauriculatum, Gymnogramme schizophylla gloriosa, Nephrolepis of sorts, Platycerium alcinorne, Pteris longifolia, P. serrulata and varieties, with Woodwardia radicans. Many of the Selaginellas, too, are very suitable for the same treatment, while other foliage subjects that may be named are Panicum variegatum, Asparagus Sprengeri, Ficus minima, F. radicans variegata, and F. repens.

HEDEROMA TULIPIFERA.

I HAVE heard good plantsmen say that the man who can grow this well can grow anything. As a fact, I doubt if any plant taxes the skill and patience more than this. It is not in the earlier stages of growth that the great difficulty is experienced; the young plants grow away freely enough. It is later on, when they get into what is termed the three-quarter exhibition size, that disappointment occurs. Just as one has got a well-balanced specimen it is vexatious to see here and there a branch die, or perhaps the

whole plant collapse, without being able in any way to render help. It is curious that no remedy should ever have been found for this mysterious disease, which has baffled generations of hard-wooded plant growers. Both *H. tulipifera* and its congener *fuchsoides* are very liable to be killed off in this way. *Erica Massoni*, one or two of the *Pimelias*, *Acrophyllum venosum*, and several other of the choicest hard-wooded things are very liable to attack. The collapse generally occurs in winter, when the vital powers are at their lowest. Like all the choicer members of the large family of hard-wooded greenhouse plants, the *Hederomas* require the best peat that can be obtained. This should never be chopped, but be pulled to pieces, adding one-sixth of sharp silver sand. Young plants should be potted just before growth commences in spring, potting rather firmly, and giving good drainage. Specimen plants must be dealt with at the close of the blooming season. In repotting them a great deal of care is needful; the soil must be neither wet nor dry, but just in the condition that will allow of its being pressed in firmly round the roots. The old ball of soil must be in the same state of moisture as the compost, which must be worked in firmly with a thin piece of wood. Watering must be very carefully done, especially in the resting time, strict attention being given that the soil does not become quite dry in hot weather. After potting keep rather close for a time.

Byfleet.

J. C.

ANSWERS
TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

DISEASED ABIES NOBILIS (A. G.).—The cause of the disease that has attacked your *Abies nobilis* is not very well understood. It is supposed to be caused by a minute insect, and scientists are at present investigating the matter. When once it attacks a plant the latter should be destroyed, and so stop the disease from spreading. We know of an affected tree that has been syringed several times annually with soft soap and paraffin for the last twelve years; this has stopped the disease from spreading, but has not killed it outright. If you have but one affected tree it would be advisable to burn it.

EUCHARIS LEAVES DESTROYED (Perplexed).—The *Eucharis* leaves sent have apparently been scorched by the sun's rays, which, owing to their thin texture, would quickly injure them. Leaves in the condition of those sent indicate a poor state of the roots, and the white fluff spoken of is probably that form of mealy bug which attacks the roots of plants. The better way to deal with your plants of *Eucharis* is to turn them out of their pots and shake off all the old soil, then hold the bulbs under a tap of running water till every root is washed absolutely clean, after which lay them out for half an hour or so to drain. When the roots are washed you will be able to ascertain

their condition exactly, and it is more than probable you will find many of them decayed. All of these must be cut off, leaving only the quite sound roots attached to the bulbs, after which they should be repotted. For this purpose care must be taken not to have pots too large, and in all probability they may be considerably smaller than those in which the plants have been growing, for the all-important item is to encourage healthy root action, which can never take place if they are surrounded by a large mass of soil. The pots must be clean and effectually drained, a suitable potting compost being two parts good yellow loam, one part leaf-mould, with one part, or nearly so, of silver sand. In potting, the bulbs should be put at such a depth that the upper part or crown is just on a level with the surface of the soil, which must be pressed down moderately firm. When finished, place the plants in a stove where a minimum night temperature of 60° is maintained. They must be shaded from the sun's rays, and care taken not to over water; at all events, till the roots are again active, though a liberal amount of atmospheric moisture is very beneficial. As new roots develop and take possession of the soil, the foliage will gradually assume a more healthy tint, and become firmer in texture, two very necessary items before you can hope for flowers. You do not say what sized pots your *Eucharis* are growing in, but good flowering examples may be had in pots 6 inches in diameter, though, of course, when full of roots larger ones will be needed. Still, once in pots 7 inches or 8 inches in diameter they will stand for years, and keep in good health without repotting, but a little stimulant in the shape of weak liquid manure and soot water will be beneficial. For large pots it is an advantage to mix some nodules of charcoal about the size of Hazel nuts with the soil, as it tends to keep the compost sweet. Healthy plants do not need as much shading as recommended for your sickly ones, but in any case they require protection from the full rays of the sun. Very little fire-heat is needed in the summer, but a minimum winter temperature of 55° should be maintained.

DEEPENING THE COLOUR OF FLOWERS (Ignoramus).—The best method of giving plants iron is to place a quantity of iron filings, old nails, or pieces or fragments of iron in a small tub or cask, and to fill this with water. In time this water will become of a deep red colour. It may then be added to plain water in sufficient quantity to make this of a light yellow colour. The plants may be watered continuously with this, so that every watering will contain a certain proportion of iron solution. Some advocate the introduction of iron filings into the soil in which the plants are potted, but the iron solution is the preferable plan.

FLOWERS FOR SHADY AND WINDY PLACE (W. S. W.).—The place indicated is "somewhat unsuitable for flowering plants, as few will flourish under such conditions. Hardy British Ferns would be the most appropriate for such a place, with bulbous plants, as Snowdrops, Glory of the Snow, and the white, pink, and blue forms of *Scilla hispanica* planted in between for spring effect. Other things which would do in such a place, providing that there is sufficient moisture, and that the overhanging trees are not too thick, are Primroses, Cowslips, and the many coloured forms of *Polyanthus*. Among the taller-growing things which might be tried, there is the Monkshood (*Aconitum Napellus*) and the variety bicolor, as well as several other species. Some of the Campanulas also like a shady place, doing much better and lasting longer in flower than when planted in full sun. The best for this would be *C. macrantha* and *C. rapunculoides*, with *C. Trachelium*, *Geranium sylvaticum*, the Lenten Roses (*Helleborus orientalis*), of which there are many pretty varieties, and some of the Liliacs, such as *L. pyrenaicum* and *L. Martagon*, might also be tried. It would be best to start with plants, as seeds would prove unsatisfactory.

NECTARINE LEAVES DISEASED (*C. Galton*).—Our correspondent's Nectarines and Peaches are suffering from a disease which is common to those trees when the weather is cold early in the season, as it has been this year. The disease is caused by a fungus commonly called the Peach tree blister. The trees usually affected by it are generally not in the most robust state of health, and a recurrence of the malady the following year is probable unless the trees are partly or wholly taken up in autumn and replanted in good fresh loamy soil. This done, new vigour will be given the trees and immunity from disease as a consequence. As regards the best treatment to give the trees during the coming summer in order to enable them to develop and mature their crop, we would advise that the worst affected of the leaves be picked off and burnt. They would wither and fall off soon, and in the meantime probably help to spread the disease to other parts of the tree. New and healthy leaf growth must be encouraged by syringing the trees morning and evening of warm days, and by occasional waterings of weak manure water. A light mulch of fresh horse manure, or some other good manure available, should be placed over the roots about 2 inches thick. This will keep the roots comparatively cool and prevent too rapid evaporation.

CLEMATIS MONTANA FAILING (*A. M.*).—It is impossible to give a reason for your Clematis montana failing to produce perfect blossoms. In those you send the petals are only rudimentary, the anthers alone being of proper size. As you say your plant is in robust health, lack of vigour is evidently not the cause of this malformation, which has never been brought to our notice before. The fact that it is planted on a pergola, and thus more exposed to the action of the wind than if it was grown against a wall, cannot, as you suggest, be the cause of the petals failing to develop, as we know several instances of this Clematis flowering well on pergolas in cold and exposed localities. Besides, wind does not reduce the size of the petals, but merely blackens them. We are inclined to think that the fault lies with the individual plant, and that wherever it was grown it would bear similar blossoms. We should, therefore, advise you to root it up and plant another in its place.

YEW HEDGE (*C. C. D.*).—It is difficult to say exactly what is the matter with the Yew, as there may be several reasons for its failure, and without seeing it we cannot do more than guess at the cause. The Yew is a long-lived plant, and your hedge should now be in condition, but the sickly look shows that there is something wrong with the roots. We should advise you to open the ground up on each side of the hedge and examine the roots, taking care not to injure them more than can possibly be helped, and not allowing them to get too dry or be exposed to the sun. You will probably find the lower roots decayed and bad, and that fresh roots are being made near the surface. The soil taken out should be replaced by a mixture of good turfy loam and well-rotted stable manure in the proportion of three parts loam to one of manure, laying the sound roots out separately, and covering them with some of the finest of the fresh soil first. The final level of the new soil should be from 4 inches to 6 inches deeper than it was before, to allow for sinking, and also to encourage the surface roots, which will help the hedge to recover itself. The whole should be trodden as tightly as possible after being filled in. It is getting rather late to disturb the roots of the hedge, but, as it is in a bad way, it is better to do it now than wait until the autumn. You should not attempt to work underneath the plants, but start some little distance away and work back towards the hedge, using a fork instead of a spade to avoid cutting the roots. A Holly hedge that came under our notice lately had been spoiled and partly killed by a leakage in a gas main about 20 feet away, which had killed the roots and poisoned the soil so that the whole had to be replaced. Cockchafer grubs are

very prevalent in some parts of Surrey, and cause great damage to many plants by eating the roots. These are of a yellowish white colour, and of nearly the size and length of a little finger when developed. There is no cure for them except to search them out and destroy them.

ROSE W. A. RICHARDSON PEGGED DOWN (*Bead*).—This favourite Rose may be successfully pegged down, and its growths will be covered with buds. You should be careful to tie down only such shoots as are well ripened, the other growths being cut back hard, and will thus provide a succession of bloom upon upright growths. Although we are able to assure you that this Rose may be pegged down, we do not advocate the practice unless a very dwarf bed is required, as by far the best results are obtained when the plants are pruned as dwarf bushes. Leave the annual growths about 2 feet to 2 feet 6 inches long, and shorten back the laterals in the older growths, and you will have a grand display of the orange buds and blossoms. It is well to discard some of the oldest shoots each season. This induces the plants to keep up a succession of new growths from the base, and thus the youthful condition of the plants is maintained.

CLEMATIS INDIVISA NOT FLOWERING (*C. T.*).—Thin out some of the growths at once, and spread out the others as much as possible so as to allow the sun to ripen the shoots. This Clematis needs to be well ripened before flowers can be expected. Those who exhibit this beautiful subject as a pot plant usually place the plants in a frame during the summer, the lights, of course, being kept off. As your plant is set out in the border you cannot do this, but you could give it abundance of air, and keep it rather dry for a week or two during the summer. This, with the thinning out we advocate above, should enable you to obtain a good display of flowers next spring. On no account cut the plant back now. You can thin out shoots so that one is trained beneath each sash-bar. This would enable you to give the Chrysanthemums sufficient light.

HOLLYHOCKS DURING WINTER (*C. T.*).—If your soil is not very damp you can winter the plants of Hollyhocks without much risk. A few of the plants may succumb to the weather, but the majority will survive. It is a good plan to draw a little dry soil to them, or burnt earth, during October. Whilst you can bring the Hollyhock safely through the winter, we should advise you to sow some seeds each spring, as by far the finest flowers are obtained from young plants. We usually sow the seed outdoors in May. They are thinned out and kept in the seed-bed until the following spring, when they are set out. It is a good practice to cut away the flowering stem as soon as all blossoms have developed, as, naturally, a plant that runs to seed is considerably weakened in its efforts to support the seed. If you have any special kind you wish to propagate from, you must mark such plants whilst in bloom so that the seed may be saved.

ROSE BUDS WITH GREEN CENTRES (*H. S. A. B.*).—Some varieties of Roses are peculiarly addicted to this malformation, for instance, Mlle. Annie Wood. Rarely does one obtain a bloom of this otherwise good Rose without a green centre. But this is not the habit of the Rose you have sent, as usually the buds of this excellent variety, Mrs. Paul, develop into charming flowers. We can only assume that the plant has received some check in its growth, or too strong doses of liquid manure have been given. We should say the trouble arises from the former. Perhaps if you disbudded the plant, taking away the centre one on each shoot, you would find the side buds develop all right. Next year we should advise a very moderate amount of pruning so as to give more work for the roots to do. We have had great success with this Rose pegged down, and also as a pillar Rose. Either of these two methods would probably check the trouble with green centres in the future.

CHRYSANTHEMUM DISEASE (*Chrysanthemum Leaves*).—We cannot find the slightest trace of rust on the Chrysanthemum leaves sent, and certainly no sign of the maggot or leaf miner. The specimens sent have every appearance of being over-fed with manure, either through potting in too rich a compost, or applying it after. The plant should be somewhat starved, and all the air possible given them, but these will require extreme care when placed in the open to prevent them being injured by frost or cold cutting winds.

TREES DYING (*G. R.*).—There is little, if any, chance of renovating your plants of Arbor Vitæ or Cypress, for it is difficult to say positively which they are. Still, as transplanting cannot be done till the autumn, it will be necessary to wait till then before filling their places, and in the meantime you might try the effects of giving them a good soaking of water occasionally, as we have often found trees of this class when fallen into ill-health to be suffering from the effects of drought. Failing these attempts at revival, it will be necessary to substitute others in the autumn. If you still wish for an evergreen of the same class, by far the best is Lawson's Cypress (*Cupressus lawsoniana*), which can be bought cheaply, is very accommodating, and keeps its colour well. Of large flowering shrubs or small trees you have a considerable choice, though we should not recommend Rhododendrons for the purpose. They are not likely to succeed under the conditions you name, and, besides this, they grow very slowly. All the following are very beautiful, and would suit your purpose: Laburnum, whose pendulous racemes of golden-coloured blossoms are surpassed in elegance by no other tree; Pyrus spectabilis flore-pleno, a charming member of the Apple family, with semi-double rosy red blossoms; Viburnum Opulus sterile (Guelder Rose), large rounded heads of white flowers in May; Spiræa arifolia, a shrub that reaches a height of 10 feet to 12 feet, which about midsummer is profusely laden with plume-like masses of creamy flowers; Paul's Scarlet Thorn, known to everyone for its richness of colouring; or a couple of good Lilacs, say, Marie Legraye, pure white, and Souvenir de L. Spath, deep purplish red. Berberis Darwini, a dense bush reaching a height of 6 feet to 8 feet, bears its orange-coloured flowers in great profusion during the month of May. This last has the additional merit of being an evergreen.

GROWING DIPLACUS GLUTINOSUS (*Oliver*).—Diplacus glutinosus only needs the treatment given to the general run of greenhouse plants. Your young plant that shrivelled up in the way mentioned must have been grown in a close, shady position, otherwise it would not have collapsed so suddenly. In order to grow Diplacus glutinosus in a cool greenhouse, it should be given much the same treatment as a Fuchsia, that is to say, beginning with young plants in 3-inch pots at this season, they should as soon as sufficiently rooted be potted into pots 5 inches in diameter, and while they will flower well in this size, the more vigorous ones may with advantage be shifted into 6-inch or even 7-inch pots. A reasonable amount of shading during the hottest part of the day is beneficial, but, at the same time, this must not be overdone, otherwise the plants will draw up weak, with but few flowers, and even these will be pale in colour. With regard to the compost, a mixture of loam, leaf-mould, and sand is very suitable, and you need not trouble in the least because you have no decayed cow manure. Do not use horse manure or mix Clay's Fertilizer with the soil, but when the plants are well established, and the pots furnished with roots, a slight top-dressing of Clay's Fertilizer once a month during the flowering season will be beneficial. Throughout the winter the plants must be kept moderately dry and free from frost, then in the spring, with increased moisture and warmth, they will grow away freely. The young shoots produced at that period strike root readily.

MAKING A WALK WITH BEACH PEBBLES (J. H. G.).—Small pebbles such as those obtained from the sea-beach are quite unsuitable for making a firm path, and the only way of binding them together to make it so would be to use cement and sand just as concrete is made. This, however, would prove somewhat expensive, and give the garden the appearance of a suburban back yard. Tar paths are also sometimes made by mixing tar with ashes and beating the whole down firmly and evenly. These are both poor substitutes for gravel in laying out gardens, as well as more expensive, and it should be possible to obtain gravel within a reasonable distance of the place, if only sufficient to give the paths a thin surface coating.

NAMES OF PLANTS.—*Burt, Horsmonde*.—The Tree Peony is *Reine Elizabeth*.—*A. P.*—The Bird Cherry (*Prunus Padus*).—*J. N., Bagshot*.—1, Judas Tree (*Cercis Siliquastrum*); 2, *Ceanothus azureus*.—*W. N.*—1, *Saxifraga hypnoides*; 2, *Pyrus spectabilis*; 3, Double Meadow Saxifraga (*Saxifraga granulata* fl. pl.).—*Veld*.—1, *Geranum phaeum*; 2, *Valerianella olitoria*; 3, *Senecio vulgaris*.—*A. J. Sampson*.—1, *Draba aizoides*; 2, *Vesicaria utriculata*; 3, *Cardamine trifolia*; 4, *Viola Skylark* (?). We cannot undertake to name florists' varieties of flowers. —*L. Gibb*.—1, *Odontoglossum Rossi majus*; 2, *Lissochilus Krebsi*, of which *L. Græfel* is a synonym; 3, *Sedum dendroideum*; 4, *Lamium maculatum*; 5, shrivelled up; 6, *Sedum Sieboldii variegatum*.—*Reginald Rankin*.—*Spiraea chamaedrifolia*.

NAME OF FRUIT.—*Dr. Watson*.—The Apple is Lord Derby.

GARDENING APPOINTMENT.

MR. W. J. JENNINGS, until recently head gardener at Oakwood Grange, Ockley, Surrey, and previously at Kew, has been appointed gardener at the new Middlesex County Asylum, near St. Albans.

CHRYSANTHEMUMS.

FINAL POTTING.

FOR giving the majority of Chrysanthemums cultivated for specimen flowers their final potting, the first week in June is generally the most suitable time. Though from various causes one may not be able to proceed with the work for another week or more, little harm will happen to the plants if they are carefully watered and allowed plenty of space to prevent a drawn growth. To keep them in a healthy and growing state it will be advisable to apply weak stimulants when pot bound about every other watering. Farmyard manure liquid well diluted, with soot added, is perhaps better at this season than anything else. I have known plants treated thus, and not potted till quite the end of June, produce exhibition flowers of the finest quality and winning the highest award. Providing every attention is paid them, it will be then ample time for the plants to do all that is required of them.

COMPOST.—The enthusiastic Chrysanthemum cultivator always looks well ahead, and he will have got a good stock of the best possible loam available, which will have been cut and built up in heaps, grass downwards, some six months ago. As is known to everyone, this is the most important item in connexion with the mixture to be used at this season. Quite three parts of the compost should be composed of this. Unfortunately, this varies very much throughout the country, and in some localities it is extremely difficult to procure. That of a medium texture, being neither too heavy nor too light, should be procured as far as possible, and when one has to deal with that of a clayey nature lighter material must be added. Accordingly only one part of finely-sifted horse manure and good leaf-mould should be added, with a sufficient quantity of finely-broken mortar rubble and clear road or river sand to render it sufficiently porous for the water to percolate freely, and, in addition, add to every two bushels one 6-inch potful of bone-meal, Thompson's Plant Manure, and finely

broken charcoal. The loam should not be sifted or chopped, but pulled into small pieces with the hand, retaining all the fibre possible, and taking out every earthworm visible. The whole should be well mixed by turning it several times, and it is best prepared several days before it is used.

SIZE OF POT.—In my opinion too much pot room is generally allowed, and I consider 8-inch pots sufficiently large for the majority, but a few of the more robust will perhaps be benefited by a size larger, and the more delicate and weaker growing ones by a size smaller. Needless to say, the pots and crocks should be made perfectly dry before use, and when new pots are used thoroughly soak and dry them the day previous.

DRAINAGE.—Without doubt this is one of the most important items to be observed in successful Chrysanthemum culture, and there are probably more failures owing to this than from any other cause. A free water course must always be maintained, and it is not the quantity but the way it is placed and protected in the pot that will ensure this. It cannot be too strongly emphasised on all our young gardeners, though it be only crocking pots, that it is one of the most important phases in good plant culture in pots, and requires more practice to become efficient in this than is generally supposed. After the crocking is accomplished many are content to select a few of the roughest pieces from the compost, place them on the drainage, and think they have done all that is required in this respect. Instead of this the best fibre should be got from the loam heap, remove all the fine particles of soil by running it through the sieve, placing sufficient carefully over the crocks to prevent the soil mixing with it, and, providing worms are rigorously excluded, the drainage should be as perfect after the flowering season when turned out as it is on the day of potting. The plants should be carefully tested an hour or two before turning them out, and thoroughly water where required. Pot very firmly, and apply a good stake to each plant before leaving the potting shed. See that all are correctly labelled, damp over the surface with a fine rose water-can, and arrange in beds in a sheltered position, standing them fairly close together. Syringe frequently in bright weather to assist the plants to recover as speedily as possible from the slight check that they must have received. About three or four days after potting much will depend on the weather as to the exact date. Thoroughly water in the plants, filling up the pots three or four times, making quite certain that every part of the soil becomes well moistened, and, after the plants are beginning to show signs of active growth, remove and arrange in their summer quarters. Green fly will sure to be troublesome in the points of the young growths at this season, and at least once a week these should receive a thorough dusting with tobacco powder during the evening, well syringing out the following morning. The leaf-miner frequently does a considerable amount of damage to the lower leaves at this season of the year, consequently apply fresh soot to prevent the fly laying its eggs, but immediately the maggot is discerned working between the tissues of the leaves it should be picked out with a sharp-pointed stick, doing as little damage as possible in the operation.

TRAINED SPECIMEN PLANTS.—These also should now receive their final shift. Attend to the necessary training and tying, and a few days after these should be arranged in a fairly sheltered but open and sunny position, so that a short-jointed growth can be made and the shoots thoroughly ripened. Allow ample room between each, so that one can move freely about them without doing damage. Every care should be taken to retain every leaf possible, and that of the healthiest description, to the last. This can only be achieved by paying strict attention to watering and keeping them free from fungus and insect pests.

Elstree.

E. BECKETT.

NURSERY GARDENS.

SPRING CABBAGE TRIALS AT READING.

BEING much interested in spring Cabbage, and having noticed a considerable amount of running to seed this season, I gladly accepted an invitation from Messrs. Sutton and Sons, Reading, to see their spring Cabbage trials a few weeks ago. The trial grounds are well out of Reading, on high land, and thoroughly exposed. The soil is very poor, stony and light. For some years in THE GARDEN I have noted the importance of care in the seeding of Brassicas, and this is not easy even in a large seed ground. The seeds are not all grown in the Reading ground, but the stock is selected and grown there first, and then in other grounds. This is of great importance to the future grower, as it is impossible to expect the best results from a poor stock or one that has been at all neglected; indeed, this is a most important point to growers, as when failures occur after growing the plants for many months it is difficult to make up losses. This year spring Cabbage failed badly in many gardens, quite 50 per cent. went to seed in one place. A friend in the West of England told me that quite 75 per cent. had failed to heart in, and this brings me to the point. I place a goodly portion of these losses to poor stocks. I admit there may be other causes, but after seeing the Reading trials I am more convinced than ever of the value of true seed. Several acres were under cultivation, and as earliness is an important point in this respect the first noted was Sutton's April. When I saw the plants in April they were compact, with close hearts, perfect models as regards shape. There were forty-two trial rows, with fourteen plants in each row, and not a single plant had run to seed. Closely following these were eighty-eight rows planted for seed, that is, the plants for stock purposes. Here again not a single plant was wrong, and this out of so many hundreds of plants showed to what perfection these trials are brought.

The next batch on trial was Sutton's Flower of Spring—a little larger, also, I think, a trifle later than the first-named, and of first-rate quality. There were sixty trial rows, and not one plant had run to seed, but this was not surprising, when a little farther on were seen the plants for selection for stock seed. Here there were 118 rows, twelve plants in a row, and only one plant out of the whole lot, both trial and stock plants, had run to seed. Sutton's Favourite comes next. This is quite a distinct Cabbage. The Reading firm are wise in making two distinct classes of Cabbage—those for autumn sowing and those for spring—in their list. Favourite is shown under both heads, and this needs explaining, as most spring Cabbages are not suitable for summer and autumn use. I mean the plants lose their compact habit, and are not nearly as good as when spring sown. Favourite, which is remarkably dwarf, is good in either season, and is peculiar in this respect, as it may be grown for the earliest or the latest. There were thirty-six trial rows, one only that had run to seed, and seventy-seven rows planted for stock seed, and not one had bolted. This shows its excellence for spring work. It is a very small Cabbage, invaluable in a private garden, and well worth special notice from amateurs, as it requires so little space.

The above are the three principal spring Cabbages on trial, but as I stated above there are others, such as Sutton's Imperial and Early Market. These are not so suitable for private gardens as the three of which I have given particulars. They are larger and more suitable for market, but had the same percentage, or nearly so, as regards bolting noticeable in each case. Some of the older varieties were on trial, such as Ellam's Early Dwarf, a splendid stock, which was very free from running to seed; the

larger Offenham, a favourite market Cabbage in the Midlands, was not so reliable; and a splendid Cabbage, Sutton's Earliest, was occupying a large space; also Little Gem, a great favourite in many gardens, a dwarf, compact grower. These two last named are best when sown in spring, and though sown last season in the autumn at Reading there is no doubt that they are best sown in the spring. Grown thus they mature quickly, and prove a valuable catch crop. There was a good breadth of the Rosette and Hardy Green Colewort. This useful late autumn Cabbage is well worth attention by all who require green vegetables of the best quality, and here the Sutton Rosette is a splendid stock, not coarse but compact, and the close, small head is surrounded by incurved leaves. This is a great favourite with us, as it is grown so easily and in such a short time.

G. WYTHES.

PRIZES FOR GARDENERS. JUNE.

A First Prize of FOUR GUINEAS,

A Second Prize of TWO GUINEAS,

A Third Prize of ONE GUINEA,

And a Fourth Prize of HALF-A-GUINEA

are offered for the best answers to the following questions.

This competition is open to all professional gardeners. Answers, which must be written on one side of the paper only, must reach this office by June 30. The envelopes must be marked "Competition." The Editor cannot undertake to return the manuscript of unsuccessful competitors.

I.—Give lists for selection from of six early Peas, arranged in order of earliness, six mid-season Peas, and six late Peas, to cover a long season; also give heights of the varieties and suitable distances apart for sowing.

II.—Give briefly details as to the best methods of soil preparation and manuring to secure a succession of Peas during hot weather.

III.—Furnish briefly practical information as to the sowing and raising of Peas under glass for planting out on a warm border to secure early gatherings; also name a few suitable dwarf varieties.

IV.—Describe the culture of Peas to be grown in pots, boxes, or on a house floor for gathering early under glass.

V.—Name eighteen varieties of Potatoes for selection from for garden culture, classifying them as early, mid-season, and late; also mention general character of growth, and proper distances apart of the rows.

VI.—Describe general requirements of Potatoes as to soil preparation, manuring, and times for planting.

VII.—Give briefly particulars as to the culture of Potatoes in pots, boxes, or in frames, under glass, and name a few suitable varieties for such purpose.

VIII.—Briefly describe the nature of the well-known Potato disease, how it may be counteracted, and what are the best agents for such purpose.

LEGAL POINTS.

DAMAGE (Yours In Trouble).—The answer to your question depends upon whether the Court will construe the use of his property by your neighbour which is causing you damage as a nuisance. If so, an action for the damage actually caused, and for an injunction to restrain the continuation of the nuisance, can be successfully brought in the High Court; but, if not, you are without legal remedy. Whether the Court would say that, in the circumstances you mention, there was an actionable nuisance or not is extremely difficult to lay down beforehand. It is impossible to define precisely the amount of damage which will amount to a nuisance. Furthermore, there are always two things to be considered—your right and that of your neighbour, each to enjoy his property for the ordinary purposes for which it and all the different parts of it were constructed. These rights, in your case as in so many others, are conflicting, and it is always difficult under such circumstances to determine whether the rights your neighbour undoubtedly has are being used in such a way as to amount to an actionable wrong. If he were using his land in an unnatural way the answer to your question would be simpler, but he has a right to carry on his trade just as you have. The points in favour of your succeeding seem to be the probability that his chimneys are too low, the fact that his buildings are extremely close to your boundary (this point depends, of course, almost entirely upon the extent of his land), and the serious nature of the damage done to your trade. On the whole your case seems a fairly good one, but, as bringing an action in the High Court is always expensive—especially when you lose—this course should not be decided upon without good legal advice from someone who knows all the circumstances.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

FLORAL COMMITTEE—MAY 23.

PRESENT: Mr. W. Marshall (chairman), and Messrs. J. Hudson, J. Green, George Nicholson, J. F. McLeod, R. C. Notcutt, C. Blick, J. Jennings, William Howe, Charles Dixon, Charles Jefferies, H. J. Jones, H. J. Cutbush, Charles E. Shea, William Cutbush, E. H. Jenkins, W. J. James, J. W. Barr, and C. T. Drury.

Mr. H. B. May, Edmonton, brought a good collection of Ferns (Gymnogrammes) on this occasion, some forty-two species and varieties being staged. The gold and silver kinds were equally well represented, not a few appearing in well-grown moderate-sized plants. We remarked such as *chrysophylla minima* and *c. rotundata cristata*, a golden form, well tasselled, and of extreme beauty as well as rarity; *c. grandiceps superba* is good among golden sorts, and *argentea* a dense, silvery variety. In point of beauty none surpasses *G. schizophylla gloriosa*, a most elegant grower of spreading habit. Silver Flora medal.

Hardy plants from Messrs J. Peed and Son, West Norwood, were freely shown in boxes.

Messrs. James Veitch and Sons, Limited, Chelsea, staged a most interesting lot of things, including many novelties from Western China. Not the least notable was *Meconopsis integrifolia*, of which one plant was bearing a dozen or more of the huge yellow blossoms, larger than most Tulips in point of size. *Clematis montana rubens* was shown in splendid form, the natural colour being more pronounced than at the last meeting. Very interesting, too, were *Primula nivalis farinosa*, with violet-purple flowers; *P. deflexa*, *P. vittata*, a species that may be described as a purple flowered *P. Sikkimensis* from Western China. The choicest of the lot, however, was the orange, or flame orange flowered *Primula cockburniana*, a bog or moisture-loving species belonging to the verticillate section, usually having about four whorls of blossom. It is, so far as we know, quite unique in colour, which is enhanced by its mealy stems and leaves. Very striking and interesting is *Echium Wildpreti*, with rose-pink flowers in a huge pyramid 2½ feet high, the long, lance-shaped leaves being covered with a dense tomentum. Silver Banksian medal.

From Finchley E. Wormald, Esq., 15, Berkeley Square, S.W., was sent a magnificent group of cut Roses, principally Maman Cochet, in which were many superb blossoms, fine in colour, and of exceptional size. A smaller batch of White Maman Cochet in the centre was also of considerable merit. Silver Banksian medal.

Quite a feature were the Roses from Mr. G. Mount, Canterbury, the rich colouring and fragrance attracting the attention of all. Mrs. Edward Mawley was exceptional in colour and form, and finely shown in company with White Maman Cochet. Silver-gilt Flora medal.

A vase of Carnation Lady Hermione was shown by Mr. Martin Smith (Mr. Blick, gardener). The colour is pleasing salmon, the large flowers very shapely and nicely scented.

Carnations, chiefly Malmaisons, were well shown by Messrs. Hugh Low and Co., the collection including the best kinds of commerce. Other plants of interest were *Apelexis humilis*, *Metrosideros floribunda*, *Saxifraga pyramidalis*, and large, well-grown examples of *Schizanthus Wistonenis*. Silver Banksian medal.

Blandfordia nobilis, with drooping cylindrical to bell-shaped flowers, orange tipped yellow, was shown by Messrs. William Bull and Sons, Chelsea, in company with Tulips and other plants.

The *Calceolarias* from Messrs. Cannell and Sons, Swanley, were representative of a very fine strain, the colours good, varied, and decided in tone, the plants models of good cultivation. *Pelargoniums* from the same source were also in capital form. Silver-gilt Flora medal.

A good lot of seedling *Petunias* came from Mr. E. Rasmussen, Waltham Cross, the flowers large and varied in colour.

Hardy flowers from Messrs. T. S. Ware and Co., Feltham, were a varied lot, and included Roses, Irises, Carnations, Eremuri, single Paeonies, Lupins, Day Lilies, and many more. A fine plant of *Ostrowia magnifica alba* was shown in company with *Sparaxis pulcherrima*. Silver Banksian medal.

A large group of *Acers* was staged by Messrs. Cripps, Tunbridge Wells, the plants very dainty in their elegant leafage at this season. Bronze Flora medal.

A group of plants of *Primula japonica* was interesting by reason of the great variety of colour represented in the plants, this varying from crimson to white, pink, scarlet, and striped flowers. This inherent capacity for variation is of great value in this species, and should not be lost sight of. The group came from Messrs. Sutton and Sons, Reading.

Messrs. J. Cheal and Sons contributed cut shrubs, *Lilacs*, *Cercis siliquastrum roseum*, and other plants.

A very fine hardy plant group came from Messrs. W. Cutbush and Son, Highgate, in which the *Eremurus himalaicus* were exceptionally good. Other notable things included *Lilium testaceum* and a pretty lot of hardy *Cypripediums*. *Ramondias* and dwarf *Phloxes* were all good. Silver Banksian medal.

Lilacs in variety were well shown by Mr. Charles Turner, Slough, double and single sorts being equally represented. Bronze Flora medal.

Mr. L. R. Russell, Richmond, brought a charming lot of *Clematises* in pots, the plants nicely flowered and in great variety. Silver Banksian medal.

Mr. R. Anker, Kensington, had a small group, in which *Drosera rotundifolia* was noted in company with small-leaved *Myrtles* and *Heaths*.

A basket of Sweet Peas was the exhibit of Miss J. Easterbrook, Fawkham, Kent. The varieties were pink and white-flowered ones chiefly.

Mr. M. Prichard, Christchurch, Hants, staged a very effective group of hardy plants in the out state. The *Eremuri*, especially *E. robustus* and its variety *elwesiana*, were excellent, and in like manner, masses of *Poppies*, *Pyrethrums*, *Irises* of many sorts, *Trollies*, *Heucheras*, *Lupins*, and other good and showy things were shown to advantage. The dwarf alpine were shown in boxes. Silver Flora medal.

Messrs. Paul and Son, the Old Nurseries, Cheshunt, had a large display of *Lilacs* with *Roses*, and among the latter *Rosa altaica*, with white flowers, was very fine. Alpines in boxes were also exhibited by this firm.

Messrs. Peed and Son, West Norwood, filled a long table with *Gloxinias* of an excellent strain. Silver-gilt Banksian medal.

Phlox canadensis Perry's variety was finely exhibited by Mr. Amos Perry, Winchmore Hill, a large group showing the character of this much-improved form of *P. canadensis*. It is obviously a good early-flowering plant not more than 18 inches high.

Camassia Leichtlinii atrocrerulea, *Iris Tollong*, *I. vaga*, *I. susiana*, *I. atropurpurea*, with *Cypripediums*, were all shown by Messrs. Wallace and Co., Colechester.

A most interesting exhibit of the hybrid *Regelia-cyclus* *Irises* came from Mr. C. G. van Tubergen, jun., Haarlem, Holland. There were a large number of kinds shown, of which we take: *Artemis*, purple-violet and plum; *Iocaste*, grey and mauve; *Pandora*, purple, with very dark purple falls; *Thalia*, blue-mauve, on a white ground; *Sirona*; and *Charon*, gold and bronze, beautifully veined. *Ismene amaneas*, with yellow flowers, was also from this firm. Bronze Flora medal.

Mr. G. Reuthe, Keston, Kent, had a small lot of alpines with Tulips, &c., *Gentiana verna*, *Viola pedata*, and *Fritillaria recurva* being noticeable.

The Misses Hopkins, Mere, Knutsford, Cheshire, brought a small exhibit of the *Daisy Alice*, together with *Primulas* and *Primroses* of many kinds, *Saxifrages*, and the like.

Mr. E. Potten, Cranbrook, Kent, had *Columbines* in variety, with *Lilacs* also in many kinds. The best plant here, however, was *Trollius europaeus* improved. It is a large and showy yellow Globe Flower, well worthy of cultivation.

SHIRLEY (SOUTHAMPTON) GARDENERS' ASSOCIATION.

THE usual monthly meeting was held on Monday, the 15th ult., the honorary treasurer presiding over a fair attendance. Mr. E. Ladham's talk on "Alpines" proved most instructive, and the small rockery which he had arranged on the platform added greatly to the interest. A good discussion followed. After the meeting a pleasant time was spent by the members in examining the rockery more closely.

THE TEMPLE SHOW.

THE Temple Show of 1905 was much like its predecessors, no better, perhaps, and certainly no worse. The groups of plants were as varied and as rich in colour as could possibly be, and all that is best in one section vied with all that is best in another. There were not quite as many Orchids this year as usual, but the miscellaneous flowering plants, and those with ornamental leafage, were as largely shown as ever. The Roses formed a splendid feature; not only were the plants well grown and freely flowered, but they were attractively arranged also. It would be unsatisfactory here to refer to the exhibits individually, for each and all were excellent. There was a large attendance on Tuesday afternoon, the tents, as usual, being uncomfortably full. To the Rev. W. Wilks, the secretary, Mr. S. T. Wright, superintendent, and his assistants, and to Mr. Reader, the best thanks of the exhibitors and visitors are due for the excellent arrangements made and carried out.

ROSES.

The group of Roses from Messrs. William Paul and Son, Waltham Cross, made a most beautiful show. Along the back were arranged Rose pillars smothered in bloom, of such varieties as Lady Gay, Waltham Rambler, Crimson Rambler, and The Farquhar. Immediately in front were bushes and standards of Clio, Mrs. Laing, Crimson Queen, Mme. de Watteville, Hon. E. Gifford, Apotheker G. Hofer (very large, rose), Niphetos, Duchess of Albany, Gloire Lyonnaise, and Perle des Neiges (multiflora). Along the front were dwarf plants of Prince de Bulgarie, Helen Guillot, Souvenir de William Robinson, Mina Barbanson, and others. Debutante, a hybrid wichuraiana, bearing rich pink flowers freely on slender drooping shoots, made an attractive pillar, but the great feature of this exhibit was Lady Gay, which may be described as a much improved Dorothy Perkins.

Mr. Charles Turner, the Royal Nurseries, Slough, made a very attractive group with dwarf Roses as a groundwork, pillars and standards being freely arranged among them. The former were represented by such varieties as Merveille de Lyon, Crimson Rambler, La France, Katherine Mermet, Edith Turner, Mrs. R. G. Sharman Crawford, Spenser, and others, while the standards were of Souvenir de Pierre Notting, Maman Cochet, Maréchal Niel, and the pillar Roses Blush Rambler, Crimson Rambler, Leuchtstern, Dorothy Perkins, and Queen Alexandra.

The Rose group from Messrs. Paul and Son, The Old Nurseries, Cheshunt, made a brilliant display. Pillars of Dorothy Perkins, Crimson Rambler, wichuraiana, Blush Rambler, and standards of Mme. Abel Chatenay, Souv. de Pierre Notting, Rambler Perle des Neiges, Mme. Derépis Matrat, Rev. Alan Cheales, new Hybrid Tea David Harum, and Frau Karl Druschki stood out from a mass of dwarf Roses, conspicuous among the latter being the Hybrid Teas Cherry Ripe, Lady Quartus Ewart, David Harum, Lady

Roberts, Mildred Grant, and the dwarf Polyantha Mme. Levavasseur.

Messrs. Benjamin R. Cant and Sons, The Old Rose Gardens, Colchester, exhibited finely-flowered plants of Dorothy Perkins, Blush Rambler, Leuchtstern, Crimson Rambler, Moschata alba, and the Garland Rose. Blush Rambler was particularly fine. There were dwarf plants of Papa Lambert, Frau Karl Druschki, Jeanne Bautois, Mrs. J. Laing, Killarney, Mme. N. Levavasseur, and others, and some very fine cut blooms of Maréchal Niel. This exhibit was arranged in the centre of one of the tents, and faced both pathways.

Messrs. T. S. Ware, Limited, Feltham, made a bright display with Roses arranged on a long table. Crimson Rambler made a bright bit of colour in the centre, and on either side of it were freely-flowered plants of Gloire des Polyantha, Eugénie Lamesch, Ethel Brownlow, John Ruskin, Etoile de France, and others. Edmond Proust (a large-flowered pink wichuraiana), Helene Rubin, and Dorothy Perkins, all climbers, were well shown also. In the centre of the group, below the rich Crimson Rambler, were some fine blooms of Frau Karl Druschki.

Hobbies, Limited, Dereham, exhibited Roses extensively. The weeping standards of Dorothy Perkins were a feature of this exhibit, and Blush Rambler and Waltham Rambler were well represented. Cut blooms of such varieties as Mme. Cusin, Souv. d'Elise Vardon, Mrs. Edward Mawley, Souv. de Pierre Notting, Florence Pemberton, and others were freely shown.

The Philadelphia Rambler, with somewhat dull crimson flowers, was shown by Hobbies, Limited, and received an award of merit. Sweet Peas and various foliage plants were employed in the arrangement, but they hardly added to its effect.

Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, made a charming display on a long side table. The background consisted of rambling Roses, such as Blush Rambler, Dorothy Perkins, Crimson Rambler, and Waltham Rambler. Here and there the Austrian Copper Briar made a brilliant bit of colour. Souvenir de Pierre Notting was represented by good plants in pots, and there were many cut blooms of Lady Roberts, Liberty, Mme. Edmée Metz, Helene Guillot, Mrs. E. Mawley, Florence Pemberton, Ulrich Brunner, Mme. Jean Dupuy, and others.

The Roses from Mr. George Mount, Canterbury, were very fine, particularly the cut blooms of Ulrich Brunner, Mrs. John Laing, Frau Karl Druschki, Liberty, Mrs. R. G. Sharman Crawford, Mme. Gabrielle Luizet, Bessie Brown, and Catherine Mermet. The pot-grown plants of Dorothy Perkins and Crimson Rambler were very freely flowered.

STOVE AND GREENHOUSE PLANTS.

Distinctly beautiful was the display made by Messrs. William Cutbush and Sons in one corner of the large tent. The group had a background of Palms and Clematis, with smaller groups of Calla elliptica and other subjects. An undulating groundwork of the new perpetual-flowering Rose Mme. Levavasseur, Dorothy Perkins, and Malmaison Carnations in variety made a most attractive display. The beautiful new Rambler Rose Mrs. F. W. Flight, a pleasing pink, with

white centre, was festooned in a very beautiful manner throughout.

Messrs. James Cypher and Sons, Cheltenham, made an exhibit of which this firm may well be proud. A great wealth of the choicer Orchids in wonderful variety, Crotons, Palms, Dracenas, arranged in a most artistic manner, made a group second to few in the exhibition.

From Messrs. James Veitch and Sons, Limited, Chelsea, came one of their celebrated displays of the choicer stove and greenhouse plants. Magnificent Caladiums (grandly coloured), Crotons in great variety and in superb form, Gymnogrammes, Marantas, Davallias, Palms, Heliconia, Asparagus, and quite a host of beautiful flowering plants, including Cannas, Azaleas, Anthuriums, Hydrangeas, and some beautiful pieces of Hæmianthus Kalbreyeri were arranged.

Carnations and Azaleas from Mr. Charles Turner, Slough, made a useful break between two groups of Roses in the large tent. Backed with Bamboos and Palms the display was very pleasing.

At one end of the large tent Messrs. Sutton and Sons, Reading, filled the whole with five large groups respectively of Cineraria stellata, Calceolarias, Gloxinias, Schizanthus, and Cineraria stellata again. Each subject was an excellent representation of its kind, colour, form, and good culture being well exemplified in each instance. Interspersed among the flowering plants were Maidenhair Fern, Caladium Argyrites, and an edging of lawn grass beautifully green. Breaking up the different groups were a number of well-grown plants of the tuberous-rooted Begonias and Nicotiana Sanderae.

The hardy Azaleas from Messrs. R. and G. Cuthbert, Southgate, N., made a glorious display. Large plants, with blossoms freely displayed in all their warm tints, were conspicuous, and smaller ones broke up any formality there might be, and were also used as an edging. Acers in variety, to contrast with the flowers, lent additional charm.

A miscellaneous group was set up by Messrs. William Bull and Sons, King's Road, Chelsea, S.W. This embraced Tree Ferns, Dracenas, Aralias, Caladiums, Crotons, and a beautiful assortment of interesting plants.

The most gorgeous piece of colour in the whole tent was the group of Cannas arranged by Messrs. H. Cannell and Sons, Swanley. In all there were some 225 plants, and none of the flowers seemed to have suffered from the hot weather.

A fine bank of Clematis from Messrs. Richard Smith and Co., Worcester, was quite a feature of the show. Large plants, well flowered, were always conspicuous. Rambler Roses at the back of the group were a curious contrast.

Hardy Rhododendrons from Messrs. J. Waterer and Sons, Limited, Bagshot, Surrey, were grand, and in company with other fine groups in the large tent were very striking. Pink Pearl, John Walker, Michael Waterer, Lady Howe, Mrs. John Penn, Kate Waterer, and B. W. Currie were among the good things staged. This was an imposing display.

From Mr. T. Jannoch, Dersingham, came retarded Lilies and Lilacs. The specimens were beautifully fresh and well grown, and the colours

most diverse. Lilies of the Valley were very beautiful.

Caladiums from Messrs. John Peed and Son, West Norwood, made a good bank, the plants being well-grown specimens, but hardly as finely coloured as we have sometimes seen them.

From Mr. E. Wagg, Maidenhead, a pretty group of Malmaison Carnations was much admired. They were nicely displayed and the colours varied.

A large group of Azalea indica from Messrs. Sander and Son, St. Albans, was a bright feature in the second tent. New and choice aptly describes the whole series, and the plants were profusely flowered.

Tree Carnations from Mr. A. F. Dutton, Iver, Bucks, were bright and attractive. The blooms were set up in long glass vases with long stems and plenty of grass, and were much admired. Enchantress, Alpine Glow, Mrs. T. W. Lawson, and Fair Maid were notable examples.

Herbaceous Calceolarias from Mr. R. J. Durham, Overton, Ealing, W., were shown in a small group with Ferns interspersed. The colours were varied.

Caladiums from Messrs. J. Laing and Sons, Forest Hill, S.E., made an interesting and bold group. More room was wanted to display them. The plants gave evidence of good culture.

The group of Carnations set up by Mr. William James, West Dean Park, was much admired. Large and handsome well-grown specimen plants chiefly filled the group, some four or five varieties being represented.

A capital collection of Ferns was set up by Mr. E. Ascherson, Pett Place, Charing, Kent. Adiantums and Gymnogrammes were represented by excellent plants, and the group was backed by Palms, &c.

From Mr. L. R. Russell, Richmond, Surrey, came a nicely-assorted group of stove and greenhouse plants.

Two groups, one of zonal Pelargoniums and the other of Ferns, were staged by Mr. H. B. May, Upper Edmonton. The zonals were bright and attractive, and included the newer and choicer sorts. Of the Ferns, too much cannot well be said.

From Mr. George Avenda, Ronsdorf, Germany, were many pleasing forms of *Primula obconica*. The colours and forms were charmingly varied.

New Verbena The King, a vastly-improved form of Miss Willmott, was set up in a small group by Messrs. W. Cutbush and Sons.

Stove plants from Messrs. Fisher, Son, and Sibray comprised a beautiful new *Croton Duke of Portland*. This is a striking plant, and quite distinct from all other forms. The rich yellow centre to the large spiky green leaves makes this an effective plant.

The *Saracenias* from Mr. A. J. A. Bruce, Chorlton-cum-Hardy, are always a most interesting exhibit. On the present occasion there were many very beautiful specimens, each of which had a charm of its own. Some were tall and stately, and others almost procumbent.

The group of new and rare plants from Messrs. Sander and Son, St. Albans, was a notable exhibit. *Dracæna Victoria superba*, *Alpinia Sanderæ*, *Pandanus warrinianus*, *Polypodium Knightæ*, *Nephrolepis Scotti*, and a large group of the new *Nicotiana* hybrids called forth high praise. These latter point to a most interesting future for this easily-grown plant.

The collection of Ferns from Messrs. J. Hill and Sons, Lower Edmonton, was a good display. Large and comprehensive aptly describes the character of the group, and many new and choice plants stood out prominently.

Tuberous Begonias from Messrs. J. Laing and Sons, Forest Hill, were very fine, and, if it be possible, better than usual. Doubles preponderated, and the colours were varied.

A grand bank of herbaceous Calceolarias was exhibited by Mr. T. H. Lowinsky, Tittenhurst, Sunninghill.

Tuberous Begonias from Messrs. Blackmore and Langdon, Twerton Hill Nursery, Bath, were a

magnificent lot of highly-finished blooms of splendid quality. Large and full and of beautiful form were the doubles comprising this display. The self-coloured flowers were effective, and the tinted and margined flowers distinctly pretty.

Begonia worthiana and the newer *B. w. Lloydii* made a grand bank of plants. They were profusely flowered, well grown, and interesting. This exhibit came from Mr. Frank Lloyd, Coombe House, Croydon.

An extremely fine group of freely flowered *Gloxinias*, beautifully marked, as well as many self-coloured sorts, together with a fine group of *Phyllocacti* in charming variety, interested many. These plants were from Messrs. H. Cannell and Sons, Swanley.

A group of the Ivy-leaf *Pelargonium*, the Hon. Mrs. Boyle, and a pretty fancy *Pelargonium* came from Mr. Charles Turner, Slough. The former gained an award of merit.

Two or three forms of the new seedling shrubby Calceolarias (Jefferies' Hybrids) were well shown by Mr. John E. Jefferies, Oxford. This is a plant with great possibilities.

Retarded Lilies of the Valley, *Boronias*, &c., with a nice collection of Palms, Ferns, and other good foliage plants, were well staged at one end of the long tent by Mr. William Ieeton, Putney.

Spiræa astilbe Peach Blossom, *S. a. Queen of Holland*, Novelty Snowflake, and others were well shown by M. Gt. van Waveren and Kruffy, Sassenheim, Haarlem, Holland.

Messrs. T. S. Ware (1902), Limited, Feltham, Middlesex, had an exceptionally handsome group of Begonias, the flowers being exclusively devoted to the large double-flowered sorts.

Gloxinias from Messrs. John Peed and Sons, West Norwood, were a very charming lot. The colours were in many cases soft and pleasing, and others bright and attractive.

Pelargoniums from Mr. V. Slade, Taunton, were pretty as well as effective. Numerous bunches of handsome sprays of new and choice sorts were frequently in evidence.

A collection of Cacti, *Bougainvillea*, and *Nertera depressa* was staged by Mr. Richard Anker, Addison Nursery, Kensington.

Pelargoniums as shown by Mr. W. J. Godfrey, Exmouth, Devon, were an attractive lot.

Messrs. James Veitch and Sons, Limited, Chelsea, had a large table group, containing hybrid *Gerberas*, *Phyllocactus* hybrids, *Schizanthus wisetonensis*, *Lobelia tenuiflora*, *Corydalis tomentosa*, *Kalanchoë felthamensis*, *Streptocarpus*, *Cineraria Antique Rose*, and other plants.

A group of miscellaneous flowering plants was staged by Messrs. W. and J. Brown, Stamford. *Verbena* Miss Willmott, *Heliotrope* Lord Roberts, Climbing Roses, Carnations, and many other plants made an attractive display.

The grand displays made by Messrs. James Carter and Co., High Holborn, are now quite proverbial. *Gloxinias*, Carnations, Begonias, Calceolarias, Verbenas, *Perfection Mignonette*, Ivy-leaved *Pelargoniums*, *Schizanthuses*, *Cinerarias*, &c., sufficed to fill the main entrance to the long tent, besides table space on the central stage. This was a splendid effort, and was much admired.

Herbaceous Calceolarias in most pleasing and diverse colours were well shown by Messrs. Clibran, Altrincham. In this instance the flowers were very large, and the plants gave evidence of good culture.

Tuberous Begonias, *Pelargoniums*, Sweet Peas, and *Verbena* Miss Willmott from Mr. Jones, Lewisham, made a very handsome and much-admired display. The Sweet Peas were the most attractive lot in the show, and Mr. Jones has shown us how they should be arranged.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, set up a large and attractive display of Carnations, embracing Malmaison, Tree, and border sorts. The same firm had a nice lot of *Schizanthus wisetonensis*, and a large and varied collection of choice plants, including *Nicotiana Sanderæ*.

Zonal *Pelargoniums* were shown in handsome

bunches by Messrs. Baker, Wolverhampton, and were the centre of attraction.

Carnations from Messrs. Thomas S. Ware (1902), Limited, Feltham, were a beautiful series, including Leander, Cecilia, Mrs. Thomas Lawson, and Lady Bountiful, all well shown.

Messrs. George Boyes and Co., Aylestone Nurseries, Leicester, had a pretty group of Carnations, in which the richer colours predominated.

HARDY PLANTS AND ALPINES.

Messrs. Barr and Sons, Covent Garden, set up a display of hardy things in their usual place in Tent No. 3. The group was a highly representative one, containing *Ixias* in abundance, Tulips, single *Pæonies* in variety, *Ranunculus*, *Pyrethrums*, early *Gladioli*, Poppies, Lilliums, and a host of other good and showy things in season. Of the smaller plants we noted *Ramondias*, hardy *Cypripediums* in variety, *Primula sikkimensis*, the white *Erinus*, *Iris cristata*, *Saponaria ocyroides alba* (a choice trailing plant), *Cheiranthus mutabilis purpurea*, and others. Irises were also good and abundant.

Mr. G. Reuthe, Keston, Kent, contributed a group, in which alpine plants were associated with choice shrubs and the like. In the first named *Gentiana verna* was very charming, rich in colour, and pleasing in the group. Hardy *Cypripediums* were good and rarer flowers were *Campanula thyrsoides*, *Onosma tauricum*, and with spikes of *Eremuri* and brilliant masses of *Embothrium coccineum* a pleasing group was formed.

Messrs. George Jackman and Co., Woking, made a fine display, distinct, good, and well disposed. The hardy *Cypripediums* were a feature, and here we noted *C. parviflorum*, *C. candidum*, *C. pubescens*, *C. aculea*, and others. *Ramondias* were very charming, and *Pyrethrums* showy and good in the extreme. *Eremuri* and the gorgeous Poppies were a feast in themselves.

Messrs. Reamsbottom and Co., Alderborough Nurseries, Geashill, King's County, Ireland, staged a very fine lot of *Anemones*, in which the King of Salmons made quite a distinct display.

Messrs. G. and A. Clark, Limited, Dover, staged perennials in many good kinds. The single *Pyrethrum* Margaret Moore is a fine pink.

Poppies from Mr. W. J. Godfrey, Exmouth, made a distinct and effective group. The huge, well-grown flowers were very striking. Loveliness is a pale salmon, with blotch; Exmouth Rival, maroon-crimson, and of great size; Lady Ebrington is of palest salmon or washed salmon colour deeper externally. Nearly all the kinds have a rich blotch on each petal.

Mr. R. C. Notcutt, Woodbridge, staged hardy perennials freely. The Eastern Poppy Lady Roscoe was extremely fine and showy, the salmon orange colour rendering this a remarkable plant. *Pæonies*, Poppies, *Cheiranthus Allioni*, Irises, and many others contributed to a fine display.

Messrs. Richard Smith and Co., Worcester, had a showy group of perennials, in which Tree *Pæonies* were especially good. *Eremuri*, Irises, *Pæonies* of the herbaceous group, *Camassia*, and others were all showy and useful subjects.

Messrs. J. Backhouse and Son, York, contributed an exhibit of rockwork admirably arranged, and containing many choice things.

Cypripedium macranthum (very fine), *Gentiana pyrenaica* (a charming tuft of this rare *Gentian*), *Dianthus Freyni alba* (a very choice plant), *Lithospermum Gastoni*, *Saponaria ocyroides alba*, and *Campanula tridentata* (purple bells) were among the more choice in the group.

The group from Mr. B. Ladhams, Shirley, Southampton, was of small size, *Columbines*, *Heucheras*, Pinks, *Gaillardias*, and a new *Armeria*, evidently of the *A. plantaginea* set, being the chief things.

A very good rockery exhibit from Messrs. Cheal and Sons, Crawley, attracted much attention. The disposal of the rocks was good, and the plants, chiefly of the alpine class, were well arranged. A very fine specimen of *Lupinus*

polyphyllus roseus, with six spikes, was quite a feature.

A very choice assortment of alpine plants neatly arranged came from the Hardy Plant Nursery, Guildford (Mr. A. R. Upton, owner). A very good plant here was *Iris pallida* fol. var. For the rest we noted *Gentians*, *Achilleas*, *Globularia cordifolia* (blue, very charming), *Androsace cylindrica* (white), several *Saxifragas*, *Ledum Lyoni* (pink), and *Saxifraga cochlearis* among many choice things.

The exhibit of alpine plants from the Craven Nursery, Clapham, Yorkshire, contained many excellent things, none finer, however, than the rich purple of *Edraianthus serpyllifolius* in the finest mass we have ever seen. It was a rare feast alone, and its beauty was enhanced by small flowering tufts of *Saxifraga cæsia*, white; the twain associated beautifully. There were *Dianthus alpinus albus*, *Iris gracilipes*, *Eritrichium nanum*, and *Ramondias*. *Primula farinosa*, of which a rare mass was shown, had a beautiful white companion. These are but a few of the choice things in a very choice lot.

A rockwork exhibit from Mr. H. C. Pulham, Elsenham, Essex, contained many good plants, of which *Ourisia coccinea*, *Armeria lauchiana*, *Onosma tauricum*, *Saponaria ocyroides alba*, and the double *Cambrian* Poppy were noticeable.

A pretty arrangement of rock plants with Ferns was set up by the Misses Hopkins, Mere, Cheshire. *Dodecatheons*, *Primulas*, *Sedums*, *Saxifragas*, *Anemone decapetala*, *Ranunculus uniflora* (soft yellow), *Primula sikkimensis*, together with a mass of the Daisy Alice, made this exhibit a pleasing and distinct one.

Messrs. James Carter and Co., Holborn, on a rockwork exhibit, arranged a large number of choice things—*Phloxes*, *Armerias*, *Aubrietias*, *Lithospermums*, *Ourisia coccinea*, *Saxifraga pyramidalis*, double *Silene maritima*, white and purple *Erinus*, the *Edelweiss*, and such like things. The arrangement was very suggestive of what might be done in small gardens.

Messrs. Wallace and Co., Colchester, set up a very artistic and naturally-arranged group of hardy plants. The *Heucheras* were very beautiful, *Pyrethrums* were good and showy, such *Liliums* as *monadelphum*, *Takesima grandiflorum*, many forms of *elegans*, the *Martagons*, and the hybrid *testaceum* were all good and well done. A lovely lot of *Cushion Irises* call for more remark than we can now give. *Eremurus* and *Gerberas* were prominent, *Irises* quite a display and a feature by themselves, while the colonising of the hardy *Cypripediums*, the *Dodecatheons*, *Trilliums*, North American *Maidenhair Fern*, and similar moisture-loving things left nothing to be desired.

Messrs. George Bunyard and Co., Maidstone, contributed a good group of perennials, of which *Geum Heldreichii*, *Incarvilleas*, *Pyrethrums*, *Eremurus*, *Eastern Poppies*, *Heucheras*, early *Pæonies*, *Achillea mongolica* and the like were conspicuous representatives. All the things were particularly fresh and good.

A very showy group of perennials in the cut state came from Mr. Amos Perry, Winchmore Hill, a great feature being made of *Phlox canadensis*, Perry's var., the flowers from the open ground being in good colour and condition. Other good things were *Geums*, *Lilies*, *Poppies*, *Eremuri*, *Ostrowskia magnifica*, *Primula Sikkimensis*, very fine, *Dianthus alpinus albus*, *Iris tenax*, *I. longipetala*, and others. *Hyacinthus amethystinus* and its white variety were also noted.

Mr. M. Prichard, Christchurch, Hants, had a fine array of single and double *Pyrethrums*, *Ourisia coccinea*, *Eriophorum virginatum* or *Cotton Grass*, *Saxifraga macnabiana*, *L. berta formosa*, *Poppies* in abundance, *Iris filifolia*, a blue *Iris*, intermediate between *I. tingitana* and the early Spanish kinds, and other *Irises*.

Baker's, Wolverhampton, new exhibitors of hardy things at this show, came up in good style with a rockwork exhibit of sandstone, in which many good things were to be seen. *Achillea*

rupestris, white; *Onosma tauricum*, dark form of *Primula japonica*, *Lithospermums*, *Columbines*, and showy *Globe Flowers*; *Edelweiss*, and *Saxifragas* were all good. A very admirable lot of *Pansies* and *Violas* flanked one end of this exhibit.

Messrs. B. S. Williams, Holloway, had *Tulips*, *Irises*, *Globe Flowers*, &c.

Messrs. Paul and Son, Old Nurseries, Chessington, had a small exhibit of hardy things, in which *Anemone sulphurea* was a notable example. *Iris susiana*, *Pæony lobata*, *Poppy Mrs. Marsh*, *Aster alpinus roseus*, *A. a. albus*, and *Saxifraga lantoscana superba* were also good.

In the open Messrs. Pulham and Son, 71, Newman Street, Oxford Street, W., set up a rockwork arrangement (with natural stone adorned with plants and shrubs. The arrangement of the rocks was generally good, yet too sparsely clothed in proportion to size. *Alpines* and shrubs with dwarf rock plants were the things chiefly employed.

The rockery exhibit set up in the open by Messrs. William Cutbush and Son, Highgate, was a most comprehensive one. *Alpines* were arranged in colonies, and on rocky ledges; hardy *Lady's Slippers* were arranged freely in groups; bog plants and *Water Lilies* appearing in a similar way. A mass of *Eremurus* was among the best of the exhibits, scores of spikes towering in profusion. Hardy *Primulas* were numerous, and not less so the varying species and varieties of *Orchis*. A wealth of *Ferns*, *Azaleas*, *Rhododendrons*, and climbing *Roses* appeared in the background. Tree *Pæonies* were exhibited by Messrs. Kelway and Sons, Langport, and embraced many beautiful shades in flowers of the largest size.

ORCHIDS.

The group of *Orchids* from Messrs. Charlesworth and Co., Heaton, Bradford, occupied a space of 200 square feet, and made a varied and beautiful display. In the centre *Phalenopsis rimstadiana* was represented by some finely-flowered plants, and there were some splendid varieties of *Odontoglossum ardentissimum*, *Princess Margaret*, *The Princess*, *The Countess*, and other finely-spotted forms. *Odontoglossum crispum Escamillo* and *O. c. superbum*, *O. wilckeanum augustum*, and other fine forms made a little group by themselves, and *O. crispum Victoria Regina*, *O. c. Clarissa*, *O. c. Alcione*, *O. c. xanthotes*, and other splendid forms were grouped together. Particularly fine were *Lælio-Cattleya luminosa His Majesty*, *L.-C. Fascinator Ayesha*, *L.-C. F. Ena*, *L.-C. F. Queen Alexandra*, *L.-C. F. rosea superba*. *Ansellia africana* was represented by a plant bearing over 300 flowers.

With a choice collection of *Orchids* Messrs. Sander and Sons, St. Albans, made a most attractive display, covering 200 square feet. Some very fine varieties of *Odontoglossum ardentissimum* were arranged in the centre of the group, together with *Cattleya Schrödera*, *The Baron*, a beautiful variety with white sepals and petals and rich lip. This has a white margin, then comes a purple band which merges into orange, purple again appearing in the throat. *Cattleyas* and *Lælio-Cattleyas* were in profusion, and comprised many beautiful sorts. *Dendrobium thyrsiflorum* was splendidly shown, one plant bearing some fifteen racemes. *Renanthera imschootiana* with its red-crimson flowers was a striking plant. *Odontoglossums* were represented by many very beautiful varieties.

Sir Frederick Wigan, Bart., Clare Lawn, East Sheen (Orchid grower, Mr. W. H. Young), sent a collection of *Orchids* that made a striking and attractive display. *Lælia purpurata*, *Sobralia macrantha*, *S. macrantha alba*, and *Thunia Marshallia* were arranged in the background, and beneath them were finely-bloomed plants of *Cattleya Mendelii*, *C. Mossiæ*, and others. The chief feature of the front part of the group consisted of the masses of *Miltonia vexillaria* in

several of the best varieties. Some good things were included in this group, notably *Lælio-Cattleya Myra magnifica*, *C. Mossiæ Wagenerii*, and *Lælia purpurata backhouseana*.

A delightful group was shown by Jeremiah Colman, Esq., Gatton Park, Reigate. Bits of bright colour throughout added much to the effectiveness of this display, which was enhanced by the interspersal of *Odontoglossums* and other gracefully-flowered *Orchids*. *Epidendrum Boundii* (orange red), *Masdevallia harryana Bull's Blood*, *M. veitchiana grandiflora*, *Lælio-Cattleya Phoebe*, and *Cochlidia noezliana* were responsible for the brilliant bits of colour. *Cattleyas* were well represented by good varieties, and there were fine varieties of *Lælia purpurata* and *Miltonia vexillaria*.

M. Ch. Vuylsteke, Loochristi, Ghent, exhibited five exceptionally finely-marked and spotted hybrid *Odontoglossums*. They were *O. amabile Ixion* (*Harry-crispum* × *crispum*), *O. lawrenceanum Adonis* (*triumphans* × *Rolfæ*), *O. Venus-tulum* (*Harry-crispum* × *ardentissimum*), *O. perculum Cybele* (*Rolfæ* × *ardentissimum*), and *O. delectum* (*Rolfæ* × *Pescatorei*).

Mr. John Robson, Bowden Nurseries, Altrincham, Cheshire, made a bright display with *Cattleyas* and *Odontoglossums* chiefly. In the centre was a mass of *Cattleya Mossiæ* and *Lælia purpurata*, and on either side were arranged *Odontoglossums* in considerable variety. Among the latter were *O. crispum Ruby*, *O. c. bonniamum* (Robson's variety), and *O. ardentissimum* (Vine House variety).

J. Rutherford, Esq., M.P., Beardwood, Blackburn, exhibited a small group of *Orchids*, consisting largely of *Odontoglossum crispum* varieties, *Cattleya Skinneri*, *C. Mossiæ*, *C. Mendelii*, *Miltonia vexillaria*. *Cattleya Mossiæ rappartiana* and *C. M. Sir Alfred Milner* were finely represented.

F. Wellsley, Esq., Westfield, Woking (gardener, Mr. Hopkins), exhibited *Cattleya schilleriana* Westfield variety, *C. Zephea alba*, and a few other *Orchids*.

Messrs. William Bull and Sons, Chelsea, arranged their *Orchids* in a high and steep bank. The rich colouring of the *Cattleyas*, *Masdevallias*, *Oncidiums*, *Lælio-Cattleyas*, and the elegant racemes of the *Odontoglossums* in a groundwork of *Maidenhair Fern* made a most effective display. *Lælia purpurata* was represented by some fine varieties, and so were *Cattleya Mendelii* and *C. Mossiæ*. The *Odontoglossum crispum* were splendidly-flowered plants.

Messrs. Hugh Low and Co., Bush Hill Park, Edfield, showed a group of *Orchids*, in which were fine plants of *Cattleya Mossiæ Ajax*, *C. Skinneri*, *Lælia purpurata alba*, *L. p. Daintyness*, *Dendrobium Bensoniæ xanthinum*, *Ansellia africana*, *Cypripedium callosum Sanderæ*, together with well-flowered *Dendrobiums*, were also shown in this group.

The group from Messrs. Stanley and Co., Southgate, N., consisted largely of plants of *Cattleya Mossiæ* arranged in a groundwork of *Ferns*. The plants of *Odontoglossum crispum* in several varieties, which were interspersed, gave an added beauty to this display. There were some very fine flowers among the *Cattleya Mossiæ*, and some very good forms of *O. crispum*.

Mr. James Cypher, Cheltenham, adopted quite a fresh plan for the exhibition of his *Orchids*. They formed the groundwork in a large group arranged on the floor of ornamental foliage plants. Mounds were also made of them around the base of specimen *Palms* and *Crotons* used in the exhibit. Altogether the effect was excellent, and although such an arrangement naturally offers some disadvantage in the way of examining the flowers closely, the general effect is far better than that of the ordinary method of staging.

OUTDOOR GROUPS.

Messrs. James Veitch and Sons, Chelsea, set up one of their delightful and comprehensive groups of some of the more precious hardy

flowers. Quite an array of Pæonies and Eremurus robustus Elwesianus formed the background, and smaller groups of Aquilegia hybrids, Primula japonica pulverulenta, Heuchera sanguinea, and several new plants from Western China and Eastern Thibet, including Meconopsis integrifolia, M. pumicea, Incarvillea Delavayi, and a beautiful series of new Primulas were shown.

Mr. L. R. Russell, Richmond, set up a charming assortment of flowering trees and shrubs, in which the disposition of the plants was somewhat unique. The group was in the form of three sides of a square, with pretty little groups of a varied character dotted here and there on the greensward. Altogether this newer idea is to be commended.

From Mr. David Russell, Brentwood, came a bold and striking group of the choicer trees and shrubs. There was much to be admired in the arrangement of this group, the charming Acers giving a delightful finish, and the artistic adjustment all that could be desired. Rambler Roses in this firm's display were very choice.

Messrs. Fisher, Son and Sibray, Limited, Royal Nurseries, Handsworth, Sheffield, set up one of their customary groups of flowering trees and shrubs, for which this firm is now so famous. Hollies were particularly good, Ilex Wilsonii and quite a number of hybrid seedlings in the pink of condition, being stately plants. Dimorphanthus marginatus albus, the giant Aralia from Manchuria, and the golden form of the same plant, D. mar. aurea, were also in splendid form, impressing us with their undoubted value. Rhododendron Pink Pearl, R. fastuosum fl.-pl., and the bright crimson R. Doncaster were each striking.

Messrs. J. Cheal and Sons, Crawley, made one of their attractive displays of hardy flowering trees and shrubs. Flowering and foliage plants were about equally disposed in their large group, and full advantage taken of the many choice subjects to make an effective exhibit. Rhododendrons, Lilacs, Azaleas, Wistaria, and other equally choice things were staged in fine form.

Another group of the choicer trees and shrubs came from Messrs. Thomas Cripps and Son, Tunbridge Wells. The plants were in beautiful condition, being charmingly clothed with dainty foliage, and all very refined and beautiful. The Acers are this firm's great speciality, many magnificent specimens being found here and there well disposed. Acer japonicum aureum, A. rubrifolium var., A. palmatum septemlobum elegans, purpureum macrophyllum, A. pal. roseum marginatum, and quite a host of other good things. Vitis heterophylla variegata, The Golden Elm, Quercus concordia (the Golden Oak), and the purple form Q. purpurea all assisted to make this a fine display together with other plants.

From Messrs. Richard Smith and Son, Worcester, came a charming group. There was quite a wealth of lovely plants, but perhaps, a trifle crowded. In this instance all the better flowering trees and shrubs were well represented, Acers being very interesting.

The cut bushes from Messrs. Wm. Cutbush and Sons, Highgate, N., were splendidly represented, and those fond of topiary work had much wherewith to satisfy themselves. Dogs, tables, peacocks, swans, ducks, chairs, vases, bottles, decanters, serpents, garden seats, and other curious forms of this work were represented in the 150 specimens arranged in one corner of the garden.

The pigmy trees of Messrs. Barr and Sons, Covent Garden, W.C., were staged in a most interesting manner under the welcome shade of two trees in the garden. The background and table covering were quite in keeping with the curious and interesting subjects staged. Some of the trees are very old, yet still in a most flourishing condition. Art in their disposition was manifest.

Japanese pigmy trees and Cacti were charmingly grouped under another tree by Messrs.

James Carter and Co., High Holborn, W.C. Many of the small trees were in quite a flourishing condition, notably the Oaks and the Larches. Cacti in great variety were arranged in a central rock group and in numerous Japanese dishes around the side tables.

Rhododendrons, &c., were set up in an informal group by Messrs. George Paul and Son, Cheshunt. The plants were freely flowered, and good quality was apparent.

A bright little group of variegated Nasturtium Ryburgh Perfection, both tall and dwarf forms, and two smaller ones of Viola Royal Sovereign and Maggie Smott came from Messrs. G. Stark and Son, Great Ryburgh, Norfolk; Waverley blue Lobelia made a good edging.

Messrs. W. Fromow and Son, Sutton Court Nurseries, Chiswick, W., staged a group of elegant Acers, &c. The form and tints of foliage seen in the plants were pleasingly diverse, and the arrangement light and artistic. A japonicum aureum was in fine form; A. roseum marginatum and other lovely forms were much admired.

Pæonias in huge pots from Messrs. Kelway and Sons, Langport, made a fine show in the open. Colour in these flowers was beautifully varied, and the quality of the flowers left nothing to be desired. Very fine were varieties Lord Burnham, Aphrodite, Lord Dunraven, T. A. Havemeyer, and Edward VII.

Tufted Pansies (Violas) growing in 2-feet round baskets were nicely shown by Mr. Howard B. Crane, Woodview Terrace, Highgate. The plants in most instances were very freely flowered.

FRUIT AND VEGETABLES.

Messrs. Sutton and Sons, Reading, exhibited forty varieties of Potatoes. These were from tubers planted on March 1, and were well finished examples in most instances. Among those specially worthy of note were Sutton's Superlative, a variety something of the shape of Victoria, with a rough skin; May Queen, a fine early kidney; Windsor Castle, this is said to be equally good for early or late, but is properly a mid-season variety; Reliance, a good Potato, and the parent of Discovery; Epicure good, and a heavy cropper; Reading Russett, red skinned, good, early and late; King Edward VII., and Early Rose; after forty years the latter still survives.

Messrs. George Bunyard and Co., Limited, Maidstone, exhibited one of the finest collections of Apples we have seen for so late in the season. Eighty-five varieties were shown, and all were remarkably well preserved. Of those particularly worthy of note a large basket of Smart's Prince Albert should take first place, the fruit being handsome and very firm. Ontario, Alfriston, Baldwin, High Canons (a variety somewhat like Wellington, but said to keep better), Wellington, and many others were equally good. In this exhibit were also included six pot plants of Cherry Guigne d'Annonay, a very fine early variety. The small trees were well cropped.

Messrs. Cannell and Sons, Eynsford and Swanley, put up a splendid collection of vegetables, which included thirty-six sorts of Potatoes, among which Haslinger, The Sirdar, The Factor, Mr. Breese (pink skinned kidney), Pink Perfection, and Lord Tennyson (purple eyed kidney) were very fine. In Tomatoes, Cannell's Perfection was well shown. Cabbage Cannell's Defiance, and some good Peas and other vegetables were also exhibited.

University College, Reading, put up a fine collection of well-grown vegetables, &c.; in the background were Tomatoes in pots well fruited, and French Beans in pots. Peas, Potatoes, and other vegetables were finely shown.

Laxton Brothers, Bedford, showed Strawberries in pots well cropped, also baskets of fine fruit. Bedford Champion and Reward being the varieties shown; these are both promising new fruits.

M. A. Belin, Horticulteur, Argenteuil, sent immense specimens of Asparagus.

AWARDS.

Gold Medal.—Sir F. Wigan, Bart., for Orchids; Sir A. Henderson, Bart., M.P., for fruit and vegetables; Messrs. James Veitch, for stove, hardy, and new plants; Messrs. F. Sander, for Orchids and Nicotiana; Messrs. Cutbush, for Carnations and alpine; Messrs. Paul and Son, for Roses; Messrs. Charlesworth, for Orchids; Messrs. Cripps and Son, for shrubs; Messrs. Sutton and Sons, for greenhouse plants; Messrs. Wallace and Co., for alpine and Lilies.

Silver Cup.—Frank Lloyd, Esq., for Begonias; S. Heilbut, Esq., for fruit; J. Colman, Esq., for Orchids; W. James, Esq., for Carnations; Messrs. Cypher, for Orchids; Messrs. R. Smith, for Clematis; Messrs. Cannell and Sons, for Carnations and vegetables; Messrs. Barr and Son, for alpine; Messrs. Bunyard, for fruit and hardy plants; Messrs. Peed and Son, for Caladiums; Messrs. Cuthbert, for hardy Azaleas; Messrs. Cheal and Son, for alpine; Messrs. William Paul, for Roses; Messrs. Rivers and Son, for fruits; Messrs. Hill and Sons, for Ferns; Mr. H. B. May, for Ferns and flowers; Mr. Ware, for herbaceous plants and Begonias; Reading College, for vegetables; Mr. Charles Turner, for Roses; Mr. Bruce, for Sarracenias; Mr. Backhouse, for alpine; Mr. Pritchard, for alpine; Messrs. F. Cant, for Roses; Mr. G. Mount, for Roses.

Silver-gilt Flora Medal.—Messrs. Carter, for flowers and vegetables; Mr. L. R. Russell, for shrubs, &c.; Messrs. J. Laing, for Gloxinias and Begonias; Messrs. Dobbie and Co., for hardy plants; Messrs. Hugh Low and Co., for Carnations, &c.; Messrs. Fisher, Son, and Sibray, for shrubs; Messrs. B. Cant and Sons, for Roses; Messrs. J. Waterer and Co., for Rhododendrons; Messrs. Jackman, for hardy plants; Mr. R. Sydenham, for Sweet Peas; Messrs. William Bull and Sons, for Orchids; Messrs. Blackmore and Langdon, for Begonias; Mr. Notcutt, for hardy plants; Mr. Perry, for hardy plants; and Mr. D. Russell, for trees and shrubs.

Silver-gilt Knightian Medal.—Mr. Mortimer, for Cucumbers and Tomatoes; and Messrs. Laxton, for Strawberries.

Silver-gilt Banksian Medal.—Mr. W. J. Godfrey, for hardy flowers; Mr. H. J. Jones, for hardy flowers; Messrs. Hogg and Robertson, for Tulips; Mr. A. Dickson, for Tulips; Messrs. Baker, for hardy plants; Mr. George Reuthe, for hardy plants; and Mr. W. Icton, for Lily of the Valley.

The Veitchian Gold Cup (value 52 guineas) was awarded to Messrs. Cripps, for shrubs.

Silver Flora Medal.—E. Ascherson, Esq., for Ferns; John Rutherford, Esq., M.P., for Orchids; E. Wagg, Esq., for Carnations; Lord Aldenham, for flowering trees and shrubs; Messrs. Jones and Son, for Sweet Peas, &c.; Messrs. Watkins and Simpson, for annuals; Mr. John Robson, for Orchids; Mr. A. F. Dutton, for Carnations; and Messrs. Kelway and Son, for hardy herbaceous plants.

Silver Knightian Medal.—Mr. A. J. Harwood, for Asparagus; Lady Warwick College, for vegetables; Hon. A. H. T. de Montmorency, for Tulips; and Mr. Charles Ritchings, for Tomatoes.

Silver Banksian Medal.—T. H. Lowinsky, Esq., for Calceolarias; Mr. A. Belin, for Asparagus; Mr. W. Sydenham, for Violas; Messrs. B. S. Williams and Son, for hardy cut flowers; Mr. C. W. Breadmore, for Sweet Peas, &c.; Mr. H. C. Pulham, for alpine; Mr. R. Farrer, for alpine; Guildford Hardy Plant Company, for alpine; Messrs. R. H. Bath, for Carnations, &c.; Mr. T. Jannoch, for Lilies of the Valley; Messrs. W. Fromow and Sons, for Maples; and A. L. Gwillim, for Begonias.

Bronze Knightian Medal.—Mr. R. Stephenson, for Asparagus.

ORCHID COMMITTEE.

First-class certificate.—Marquis de Wavrin, for Cattleya citrina maxima; Mr. E. Ashworth, for Zygopetalum Ballii (natural hybrid); and M. Vuylsteke, for Odontoglossum x amabile Ixion.

Awards of merit.—Mr. R. B. White, for Odontoglossum x lochristyense Ardara variety; M. Vuylsteke, for Odontoglossum x lawrenceanum Adonis (triumphans x crisp-harryanum); Messrs. Low, for Cattleya Mendeli Cicero; and Mr. Wellesley, for Cattleya schilleriana Westfield variety.

Botanical certificate.—Messrs. Cutbush, for Bletia hyacinthina alba.

Cultural commendation.—Mr. W. P. Bound, gardener to Jeremiah Colman, Esq., for Odontoglossum crispum; four spikes grown in two years from one bulb.

FLORAL COMMITTEE.

Awards of merit.—M. G. Arends, Ronsdorf, for Primula X Arends; Hobbies, Limited, Dereham, for Rose Philadelphia Rambler; Messrs. T. S. Ware (1902), Limited, Feltham, for Begonia Mme. Gramby; Messrs. William Paul and Son, Waltham Cross, for Rose Lady Gay (Rambler); Mr. W. J. Godfrey, Exmouth, for Pelargonium M. Rosaire; Mr. A. J. A. Bruce, Chorlton, for Sarracenia flava gigantea; Messrs. Blackmore and Langdon, Bath, for Begonia Mme. A. Patti; Messrs. Cutbush and Son, Highgate, for Rhododendron Smithi aureum, Verbena the King, and Erodianthus Pamilio; Mr. C. Turner, Slough, for Pelargonium the Hon. Mrs. Boyle; Messrs. Paul and Son, Cheshunt, for Rose David Harum; Mr. A. Perry, Winchmore Hill, for Phlox caudensis Perry's variety; Messrs. Sander and Sons, St. Albans, for Azalea indica Julius Roehrs; and Mr. Reuthe, Keston, for Eremurus Elwesii albus.

FRUIT COMMITTEE.

First-class certificate.—Mr. S. Mortimer, Rowledge, for Cucumber Delicacy; and Messrs. T. Rivers and Son, Sawbridgeworth, for Peach Peregrino.

THE GARDEN

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WEEDS.

WEEEDS have been described as plants in the wrong place, and the description is certainly a good one. They seem to grow and flourish practically all the year round, while a few warm showers and sunny days in spring make them thrive amazingly. A bed of small plants often becomes overgrown and nearly smothered before one properly realises that spring has come and that the hoe must be got ready for use. The weeds most commonly met with are Grasses of sorts, Chickweed, Dead Nettles, Nettles, Groundsel, Dandelions, and Docks. Of these the first two are the commonest, and appear almost universally on cultivated ground. The worst weed of any is the Couch Grass, or Twitch Grass, and when a piece of ground is fairly overrun with this time and money are necessary to get rid of it. It rarely, if ever, appears on ground that is regularly cropped and worked, but where ground is allowed to remain idle for a time it is certain to appear. There have been many remedies suggested for this pest, but the only effective method of destroying it is to fork it out thoroughly and burn every scrap. After it has apparently been completely got out, it will be found that enough small pieces remain to infest the ground again if it is neglected. It is an open question as to what crop should be planted afterwards, but it should be one that will allow of the ground being hoed and kept clean. Potatoes fulfil these conditions almost as well as anything, more especially if a sort that makes a lot of haulm is used. Potatoes are hoed over several times before being earthed, and when they are dug there is an opportunity of getting rid of any Couch Grass that has appeared.

Trenching is a mistake, as Couch Grass must be buried at least 3 feet deep to kill it, and to bury good top soil at that depth is sheer waste, as this means burying all the sweetened fibrous soil and bringing poor, hungry stuff to the surface to take its place. The only tree we know that will kill this weed is the Lime planted close together, as in nursery quarters. After the first year or two no weeds will grow to any extent under Limes, probably being either killed by drip or shade. Where there are gaps weeds will

make a start, showing that they are killed by some overhead influence, and not through any action of the roots of the Limes. Dry weather is necessary when cleaning the ground of Couch Grass, so that every piece can be shaken out ready for burning, and if the work cannot be done in spring, it should be left until the summer, leaving the ground uncropped for a season. The cost varies with the nature of the ground to be cleaned, but roughly it works out at about 2s. or a little more a rod, equal to £16 an acre.

Other kinds of Grasses, Chickweed, Groundsel, and Dead Nettles can be kept down by the use of the hoe during the summer, or by hand weeding, but it should always be remembered that nothing ought to be taken off the ground that can be left on it. The practice of raking up every weed and leaf in the shrubberies and wheeling them away to form a heap is a radically bad one, as this so-called rubbish, dead leaves particularly, is Nature's way of mulching. Such material can be covered with a sprinkling of soil to hide it, or be dug in if the roots of the plants permit. Nettles, Dandelions, and Docks are not very common on well cultivated ground, but sometimes they appear, and if allowed to take firm hold of the ground they can only be got rid of by forking out. Docks especially should not be chopped off, as this only means two or three growths appearing instead of one, while the thick tap-root descends deeper and firmer into the ground.

A weed that is common in some parts of Surrey, but is not found to any great extent elsewhere, is *Claytonia perfoliata*, an American plant which has become naturalised on cultivated ground, and which has received the common name of American Chickweed. It was first introduced with some plants from America, and has since spread all over the land. It is extremely prolific when it has once become established, but there are not many places where it will grow. One point in its favour is the fact that it commences to grow early in the spring, and grows more quickly than any other; it smothers them out, while it is itself easy to dispose of. It ripens its seeds by the end of May or a little later, and is lost to sight by the end of June. We have never seen it except on cultivated ground, where it grows luxuriantly. It is spread by birds—doves and pigeons

chiefly—which are very fond of the hard black, shining seeds. Though weeds are a pest and make a lot of work in the garden, yet we should not forget that ground that will not grow weeds will not grow anything.

THE ANNALS OF THE LITTLE RED HOUSE.—IV.

I FOUND after so many years away from a garden that I had somewhat rusted, but the lessons of one's youth are very durable, and day by day all the old knowledge seemed to revive, and the practical teaching given me by my mother in the schoolroom returned. More especially vivid were the lessons on old-fashioned flowers, amongst which the varieties of double Primrose and border Auricula were her favourites. She grew both in the greenhouse, as well as in the open air, and I remember the wonderful beauty of pots of these simple flowers on the greenhouse shelves in early spring—a large deep crimson velvet Primrose, a royal purple, and golden yellow. Lancashire has always been the home of the Auricula. On my mother's visits to a manufacturing town, where a relative had a living, she would bring back rare and beautiful specimens bought from some poor artisan, who had grown them in a little window in a smoke-darkened street. There they are called Bear's Ears, and by that local name I first knew and loved these charming flowers.

But to return to the little Red House. I had, of course, to begin to get ready my stock of flowering plants for the next year. I had done all I could for immediate needs, and I had to be careful about expenses.

Having prepared my piece of land for a seed garden, I divided it into various-sized beds, edging them with flints, of which I found a pile in the stable-yard, and we covered the paths with ashes as fast as the house supplied them. Here in June I sowed Sweet Williams and Canterbury Bells, keeping the colours of the latter separate with a view to future colour schemes. I sowed also a good patch of Wallflower, early and late—with these exceptions I find everything does better in boxes—and pricked out when old enough to fend for themselves against slugs. Antirrhinums especially must be treated so—for slugs are most tiresome when the seedlings first appear; in fact, I keep the Antirrhinums in their boxes until ready to plant out in the borders. I saw also it would be necessary to supplement largely my stock of herbaceous things, and I sowed in boxes Delphiniums from choice strains, Scarlet Lychnis, Oriental Poppies, and Hybrid Aquilegias,

the pretty common varieties which I have had taste enough to love, were cropping up all over the borders, self-sown, before the first summer was over. I also grew a good lot of *Erigeron speciosum*, and, of course, Iceland Poppies—the latter are sown every year, as they soon die out. I am sure the amateur gardener often fails in raising plants from seed by using heavy soil with not enough sand. I dare say you have noticed how readily Wallflowers come up in a gravel path, but, strange to say, Primroses will too.

There was no Lily of the Valley bed in the garden, and as this takes nearly as long to establish as an Asparagus bed, I decided to make it at once, choosing a semi-shaded spot and using plenty of old leaf-mould. The difficulty is that the spot selected for coolness and shade is often proportionately dry, and Lilies of the Valley like and require moisture. The aforesaid bed is overhung by a large Yew, so it really does not receive its proper tribute of rain. I planted some well-grown crowns about 1 foot apart, and mulched the bed well in the autumn, giving it copious waterings in the summer. The first season it flowered very sparsely, and it has taken five years to establish satisfactorily. It is, by the by, a great mistake to disturb your Lily of the Valley by taking up crowns for forcing. It is far better to buy well-prepared roots from a good grower, and when they have served their turn they can be added to the stock. Some people are extremely fond of the process known as robbing Peter to pay Paul, and practise tiresome petty economies such as this and saving Sweet Pea seed, thereby stopping the much-desired production of flowers. Instead, they might save more by collecting dead leaves and burning garden stuff to return to the clamorous soil, and taking care of their pots, nets, stakes, and garden labels, all of which things cost much to buy in the course of the year.

I have an occasional roll-call of garden tools, watering pots, truck baskets, &c., and it is astonishing how many defaulters there are. "The sieve was lent to Mr. Smith, who did not return it, and the watering pot had a hole knocked in it, and I do not know what has become of it, and we have never had a measuring tape for years." There is always a large outlay necessary for garden tools on first taking a place, the roller, lawn mower, and water cart representing quite a large sum of money, and it is not the least use buying cheap goods, for the wear and tear is enormous.

I should always advocate going to a first-rate house for these things, and I fancy you save a little by buying at headquarters if they will pay carriage. Then there is the question of garden frames. These can be bought wonderfully cheap now they are made by machinery, but, if you do this, always give them a second coat of paint. We make our own frames; they come out at a very little less, but we think they are better, and the master is an excellent carpenter and enjoys the work on wet days. I had two charming little miniature frames made to use up the glass of spoilt photographic plates! So you see, here, as an old sailor friend used to say, "Economy is the soul of the Service." In the next article I hope to tell you how we built our pergola.

AUGUSTA DE LACY LACY.
(To be continued.)

PRIZES FOR GARDENERS. JUNE.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA

are offered for the best answers to the following questions.

This competition is open to all professional gardeners. Answers, which must be written on one side of the paper only, must reach this office by June 30. The envelopes must be marked "Competition." The Editor cannot undertake to return the manuscript of unsuccessful competitors.

- I.—Give lists for selection from of six early Peas, arranged in order of earliness, six mid-season Peas, and six late Peas, to cover a long season; also give heights of the varieties and suitable distances apart for sowing.
- II.—Give briefly details as to the best methods of soil preparation and manuring to secure a succession of Peas during hot weather.
- III.—Furnish briefly practical information as to the sowing and raising of Peas under glass for planting out on a warm border to secure early gatherings; also name a few suitable dwarf varieties.
- IV.—Describe the culture of Peas to be grown in pots, boxes, or on a house floor for gathering early under glass.
- V.—Name eighteen varieties of Potatoes for selection from for garden culture, classifying them as early, mid-season, and late; also mention general character of growth, and proper distances apart of the rows.
- VI.—Describe general requirements of Potatoes as to soil preparation, manuring, and times for planting.
- VII.—Give briefly particulars as to the culture of Potatoes in pots, boxes, or in frames, under glass, and name a few suitable varieties for such purpose.
- VIII.—Briefly describe the nature of the well-known Potato disease, how it may be counteracted, and what are the best agents for such purpose.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

- June 16.—Gardeners' Royal Benevolent Institution Festival Dinner.
June 20.—Royal Horticultural Society's Meeting.
June 21.—York Gala (three days).
June 26.—Isle of Wight Rose Show.
June 27.—Oxford Commemoration Rose Show.
June 28.—Farnham Rose Show; Southampton (two days); Richmond (Surrey) Horticultural Show.
June 29.—Canterbury, Reading, and Walton-on-Thames Rose Shows; Colchester Flower Show.

Primula Veitchii.—We regret that, owing to the mixing of blocks, the illustration of *Primula Veitchii* in our issue of last week

(June 3) was produced as *Primula japonica* variety. *Primula Veitchii* is a new species from China with rosy purple flowers, and an introduction of the highest importance.

Brussels Sprout The Bullet.—I am much indebted to Messrs. Fisher, Son, and Sibray, Limited, the Royal Nurseries, Handsworth, Sheffield, for their correction concerning the above excellent vegetable. I am pleased to know the origin of The Bullet Brussels Sprout. There are many really good things in the vegetable family in the provinces that are worth knowing, and, though not often described, they are much valued for their quality. When such vegetables retain their good form for years their value is increased. The raisers or introducers of The Bullet Brussels Sprout say it was sent out in 1890, and from my own close observation the stock at this day is very true. Considering how quickly some of the Brassicas degenerate this proves it to be most valuable. I have previously noted its lateness, compact growth, and value when larger sorts are past.—G. WYTHES.

Legacy to a gardener.—Mr. William Smith, head gardener at Newtonaids, near Dumfries, has been left a legacy of £250 by his late employer, Mr. Douglas, who also handsomely remembered several other employés on the estate.

Ghent Azaleas out of doors are flowering profusely in the gardens here. When one considers how well these plants thrive, and the pleasing effect they produce, even so near London, one wonders why they are not in much greater demand. When cut and used in large vases they are of undoubted usefulness, and very attractive.—ALBERT EDWARD CARTER (gardener to G. W. P. Woodroffe, Esq.), *North House, Putney*. [Mr. Carter sent photographs showing the fine groups of Azaleas, but unfortunately they were not suitable for reproduction.—Ed.]

Aster Stracheyi.—This pretty little Himalayan Aster is now in full flower, and is a handsome object in the rock garden. Its blossoms, borne on stems 7 inches in height, are lavender-pink in colour, and 2 inches across. It is earlier than any of the forms of *Aster alpinus*, and its flowers are larger. Though introduced in 1885, it is far from common, but its merits deserve a wider recognition.—S. W. F.

London as a garden city.—A large attendance gathered at the first meeting to consider the proposal to hold an exhibition in the East End intended to demonstrate what can be done towards the conversion of London into a garden city, or at all events a city of gardens. The meeting was held in the council room of the Agricultural and Horticultural Association, Long Acre, with Canon Barnett in the chair. Letters of hearty approval from many representative men and women were read by Mr. Edward Owen Greening, who acted as convener of the gathering. Mr. Joseph Fels, who has given the free use of a farm to the Unemployed Committee, sent with his approval an official report of a successful association in Philadelphia which takes in hand vacant lots of land in that city pending their requirement for building purposes and converts them into gardens, some beautiful, and some profitable. It was resolved to hold an exhibition during the second week in July at the White-chapel Art Gallery, kindly lent by the trustees for the purpose. There will be a show of flowers, fruit, and vegetables grown in London and its suburbs, and plans of garden cities and garden suburbs in existence or under project. The Hon. H. A. Stanhope was elected president. About twenty-five names were nominated for the first council, and a working executive elected of ten, with Canon Barnett as chairman and Mr. E. O. Greening as vice-chairman. Mr. Campbell Ross and Mr. E. W. Greening were elected hon. secretaries. It was resolved to divide inner London from its suburbs in offering prizes for exhibits.

Daisy Alice.—This little Daisy, with its salmon pink, quilled flowers, is certainly the prettiest of its family. The beauty of the individual blossom on close inspection is undeniable, and a group of a couple of dozen plants provides a carpet of soft colour for many weeks, and is quite a feature in the border. It is a Daisy that all should grow, as it is readily increased by division, and succeeds in almost any soil and exposure.—S. W. F.

Dianthus Emilie Pare.—This is one of the prettiest of all the Pinks, and has a far harder constitution than some of them, such as Napoleon III. and Atkinsoni. Its double salmon pink flowers are of a charming shade of colour, and are produced in abundance. A tiny plant I procured three years ago is now quite 2 feet across, and has been in flower since early March. It has now forty-five perfect expanded flowers on it, and the numbers of strong, branching flower-stems that are now vigorously pushing up show that its flowering season will extend for many weeks yet. It does not seem to be much known, and I have never seen it mentioned in the horticultural Press, but I am sure that no one who has once grown it would willingly be without it. Its flowers are pleasantly, though not strongly, perfumed.—S. W. FITZHERBERT.

Rose Richmond.—This new Hybrid Tea, judging from a couple of plants flowering in the greenhouse at Kew, appears likely to rank with, or even excel, Liberty as a forcing Rose. It is a rather brighter red than Liberty, and very fragrant. Although only small when received, it is growing freely, and promises to be a perpetual bloomer. Of American origin, it is said to be a cross between Lady Battersea and Liberty. From the demand for plants in America it has evidently caught on, 150,000 having already been disposed of.—A. O.

Veronica gentianoides.—Although probably met with as frequently in gardens as most Veronicas, this plant is not cultivated as extensively as its merits deserve. It is quite at home in the rockery or herbaceous border, although perhaps its best use is for spring bedding. As a groundwork for the tall Darwin Tulips, or in a bed by itself, it is equally effective. Of very easy culture, it is readily increased by division soon after flowering or in late autumn. The racemes of closely-packed flowers are 1 foot or more in height, pale blue in colour. Alba, a whitish variety, is even more useful for spring bedding, especially when associated with Tulips. At the present time both plants are a mass of flower at Kew, on the herbaceous border and in front of the Palm house. It is a native of South-Eastern Europe and Asia Minor.—A. O.

A hardy Citrus.—Egle sepiaria is the name in the "Kew Hand List" given to that hardy member of the Orange family just now flowering freely out of doors. Other names, such as Citrus trifoliata, C. triptera, Limonia trifoliata, Pseudogle sepiaria, and Triphasia trifoliata, have also been given it, so that, at least in respect to names, it has been liberally treated. It succeeds best in a well-drained loam and a sunny position, and so situated it forms a freely branched sturdy bush, thickly studded with stout spines. The bark of the young shoots and spines is of a rich green colour, so that when without leaves it is very noticeable. The leaves are trifoliate, and die off in autumn richly tinted with yellow. As a flowering shrub it is decidedly noteworthy, the flowers, which unfold at about the same time as, or slightly before, the leaves, being composed of five spreading petals, the whole forming a white flower about a couple of inches across. These flowers are in particularly favoured districts succeeded in their turn by fruits, which when ripe are like small Oranges, being rugged outside and yellow in colour. They are, however, seldom, if ever, borne in the London district, though in the south of France I

am told these fruits form a very notable feature. From its uncommon appearance in every respect this Egle is interesting, and its formidable appearance suggests that as a hedge plant, given a suitable situation, it should hold its own with most competitors.—T.

Two delightful Everlasting Peas.

In No. 4 greenhouse at Kew there are just now two decidedly pretty but uncommon members of the Pea family in bloom, viz., *Lathyrus pubescens*, a native of Chili; and *Lathyrus splendens*, from California. The first named, *L. pubescens*, was quite recently noted in THE GARDEN. The specific name of this is derived from the pubescent character of its leaves and young shoots, but far and away the most important feature are the clusters of bright lavender-blue flowers, which are at this season freely borne. The colour may appear commonplace, but it is really delightful. This Pea is a native of Chili, and was, I believe, introduced many years ago; then lost, or nearly so, and finally reintroduced. It succeeds out of doors only in favoured districts of this country, but planted in a prepared bed in the greenhouse, as at Kew, it is just at home. *Lathyrus splendens*, the second to mention, is a native of Southern California, and I remember that it was distributed twenty years or more ago by the late Mr. William Bull of Chelsea. I, however, never learnt that any of these flowered, and it seems to have disappeared till sent to Kew, where it first bloomed in 1897. The colour of the flowers is a bright carmine-red, in which respect it stands out from all the members of the Pea family.—T.

A beautiful pillar plant.—For the cool greenhouse in spring *Lathyrus splendens* is a lovely plant for covering bare pillars. It is scarlet-purple in colour, and by many considered the most beautiful species of the whole genus. Propagation is effected by seeds and cuttings. It is a perennial, and grows to a height of 10 feet to 12 feet. So far I have not heard of its surviving the winter when planted out near London, but there seems no reason why it should not succeed in sheltered positions in the south and west. The border in which it is growing must be well drained. The most suitable compost is formed of equal parts fibrous loam, peat, and leaf-mould, adding plenty of sharp sand. It is known as the Pride of California, being a native of Southern California. A coloured plate of it appeared in THE GARDEN, Vol. LII., page 162. This species, and also *L. pubescens*, are flowering in the greenhouse at Kew at the present time.—A. O.

Lilacs at Kew.—Judging by the way the common Lilac is planted here, there, and everywhere, one unacquainted with the subject might well imagine that it formed almost the only representative of its class, whereas there is really a considerable choice of varieties, differing widely from each other in colour and other particulars. A walk around Kew at this, the flowering season, reveals the great wealth of Lilac blossom, and the extensive material that the varieties of the common kind alone furnish the planter with. Regarded solely as outdoor shrubs, the double-flowered forms are a little disappointing to me, and for my own part I prefer the single ones, though under glass the double kinds are decidedly pretty. Among the most attractive of those noted at Kew may be mentioned *Alba grandiflora*, white; *Marie Legraye*, white; *Delphine*, bluish; *Lovanensis*, pinkish; *Souvenir de L. Spath*, perhaps the richest in colour of all the purple reds; *Camille de Rohan*, somewhat in the same way; *Schneelavine*, pinkish mauve; *Rubra insignis*, reddish purple. All of these are single, and of the doubles may be especially mentioned *Léon Simon*, lavender-blue; *Alphonse Lavallée*, bluish; *Mme. Abel Chatenay* and *Mme. Lemoine*, two fine whites; *President Carnot*, pinkish; and *Senateur Volland*, purplish. The Persian Lilac (*Syringa persica*), too, with its smaller leaves and

far more elegant manner of growth, must on no account be omitted from any selection, however limited. In this, besides the typical form, which varies somewhat in tint, there is the variety *alba*, whose blossoms are almost white. The Rouen or Siberian Lilac is of unknown origin, but its latest accepted botanical name (*Syringa chinensis*) would seem to indicate that it is a native of China. In growth and other particulars it is about midway between *S. persica* and *S. vulgaris*, and on that account it is usually regarded as a hybrid between the two. There are several varieties, and one of them, known as the Lilac de Marly, has long been a favourite on the continent for forcing. That the Lilac is a most accommodating shrub is persistently brought home to one when noting the way it flourishes under adverse conditions, yet, at the same time, it well repays a little attention. Complaints of Lilacs not flowering are by no means infrequent, and while admitting that some varieties are freer in bloom than others, there is no doubt that much trouble arises from the large number of suckers which are pushed up and allowed to grow unchecked. If in bush form, two or three suckers may be allowed to grow in order to keep up a vigorous specimen, but the others must be cut away, and, of course, in the case of a standard plant none should be allowed to grow.—H. P.

Danger of galvanised wire.—The damage done to tender shoots by allowing these to come into contact with new galvanised wire is very generally known. The acid used in galvanising is very destructive to immature foliage and tendrils, especially in the neighbourhood of towns where much smoke is in the air; but if the wire is old and weathered, or if it is thickly coated with paint, no harm is done to the tenderest shoot that touches it. It is always the custom in this garden to paint all galvanised wire immediately it is put up, but, unfortunately, owing to pressure of work, this was neglected in a certain case lately. Two young plants of *Lapageria*, rose and white, had been put out against a north wall in the open, and galvanised wire strained up the wall for them to climb. About three weeks ago, on looking at the plants, I found that the wire had not been painted, and that wherever the young shoots had touched it they were dead. The house painters, when engaged in their work shortly after the wires were put up, had dropped some paint upon one portion of the wire, and here a young shoot had twined that was quite uninjured. Needless to say, the wires were at once painted, but some weeks have been lost through neglect to render the wire harmless before the plants started into growth.—S. W. F., *Kingswear*.

Spring flowers in a Berkshire garden.—Sunningdale Park, near Ascot, the residence of Major Joicey, possesses a delightful garden. It contains many miniature hills and dales, and much pleasantly undulating ground. Its naturally effective character has been taken advantage of by the planter, and carefully planned groups of trees and shrubs and herbaceous plants in their several seasons of beauty add plant life and colour in their most attractive guise. In the long dell overlooked by the house a pond, its margins covered with clumps of Bamboos and *Arundo*, Flag Irises in purple, yellow, and white, dwarf Phloxes, *Aubrietia*, and other flowers, their rich colours reflected in the water, greatly adds to the charm of the scene. At one end the water enters through banks of *Rhododendrons* and *Azaleas*, now almost in their full beauty, and finally reaches the pond through rocks clothed with the rich blue of *Lithospermum prostratum*, *Arabis*, *Iberis*, *Alyssum*, and other bright spring flowers. Groups of Japanese Maples, their rich coppery-red foliage associating effectively with white Lilac, *Broom*, *Spiræa*, and *Choisya*, standard *Rhododendrons*, and beds of *Rhododendrons*, a feast of bright colours, stud the rising ground on one side of the water, while on the other the Rose garden

close by the house is reached through a rock garden gay with Rock Roses, Indian Azaleas, the new Thibetan Poppy, Veronicas, double Arabis, and a host of other flowers. In the Rose garden proper Marie van Houtte has been finely in flower for a week or two, and still is yielding her welcome primrose yellow blossoms, the outside petals tenderly tinged with rosy red. Elsewhere in the garden Niphetos was in good flower on a wall facing east—the outside wall of a hot-house.—T.

A fragrant stove plant.—In its native country, the West Coast of Africa, *Turraea heterophylla* is said to attain the dimensions of a small tree, but, as it needs here the temperature of a stove, there is seldom room in such structures for its full development. Still, it will flower as a bush from 5 feet to 6 feet high, and though even in that stage it cannot be regarded as showy, yet it is decidedly interesting and pretty, while in addition the flowers are deliciously fragrant, resembling nothing so much in this respect as our native Honeysuckle. This *Turraea* forms a freely-branched specimen clothed with ovate leaves about 6 inches long, thin in texture, and more or less hairy, while the flowers are borne in axillary clusters towards the points of the shoots. Individually they are very curious, being composed of five strap-shaped petals, greenish in colour, about $1\frac{1}{2}$ inches long, which, coherent at first, afterwards become free and the upper portion recurves. The staminal tube is very slender; even the expanded mouth, which is fringed, is not more than a quarter of an inch in diameter. It is whiter than the rest of the flower, and from it the stigma protrudes for quite half an inch. Though regarded chiefly as a botanical curiosity, this is in full flower as attractive as *Loropetalum chinense*, which in its strap-shaped petals it somewhat resembles. It belongs, however, to quite a different order, viz., *Meliaceae*, whereas the *Loropetalum* is a member of the *Witch Hazel* family.—H. P.

Begonia Lafayette.—The admirable fitness of this crimson small-flowered double tuberous *Begonia* for bedding is now well known, and so far it has not yet been excelled; but I saw plants of it the other day in 5-inch pots, not more than from 12 inches to 14 inches in height, flowering so beautifully at Hackwood Park, that I feel, were its qualities for such purpose widely known, it would soon become a most popular spring-flowering pot plant. Mr. Bowerman starts his tubers in gentle warmth at Christmas, and now finds that if started early they afterwards break naturally early. Large tubers, after growth has begun in shallow boxes in sandy soil and in warmth, are easily divided with a sharp knife. The plants come into bloom at the end of April, and flower most profusely for a long time. Those I saw early in May had many richly coloured double flowers on them. In the hands of trade growers such a *Begonia* should make a first-rate market plant.—A. D.

The Grass.—How deliciously sleeps the grass in the moonlight, and how joyfully it laughs in the radiance of the sun. There is no place which it will not beautify. It climbs up the steep mountain passes which are inaccessible to man, and forms ledges of green amid the rivings of the crags; it leaps down between shelving precipices, and there fastens its slender roots in the dry crevices which the earthquakes had rent long ago, and into which the water trickles when the sunbeams strike the hoary snows above. There it leaps and twines in the morning light, and flings its sweet, sweet laughing greenness to the sun. There it creeps and climbs about the mazes of the solitude, and weaves its fairy tassels with the wind. It beautifies even that spot, and spreads over the sightless visage of death and darkness the serene beauty of a summer smile, flinging its green lustre on the bold granite, and perfuming the lips of the morning as she stoops from heaven to kiss the green things

of the earth. It makes a moist and yielding carpet over the whole earth, on which the impetuous may pass with hurried tread, or the feet of beauty linger.—SHIRLEY HIBBERD, in "Brambles and Bay Leaves."

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, W.C.

THE WHITE GENTIANELLA (*GENTIANA ACAULIS ALBA*.)

Messrs. Smith and Sons, Darley Dale Nurseries, Matlock, write: "We are sending you a few blooms of this valuable and beautiful novelty, which was raised in these nurseries some years ago. It was found in bloom, growing amongst a large quantity of the ordinary blue *Gentianella* (*G. acaulis*), raised from seed gathered by us here. It is a beautiful pure white variety, and free blooming. Our plants are now in full flower, and a picture worth coming many miles to see. Its habit and growth is the same as the ordinary *Gentianella*." A beautiful *Gentian* of purest white, with a yellow suffusion inside the flower, which only intensifies the purity of the remainder. Lovers of good alpine plants should add this to their collections.

ST. BRIGID ANEMONES.

Mrs. Smythe, Tobaccooran, Carnmoney, County Antrim, sends a beautiful collection of St. Brigid Anemones, which represent many colours—crimson, pink, blue, red, creamy white, and many other attractive shades. Mrs. Smythe writes: "A few blooms of my St. Brigid Anemones, seedlings of last year. I have long cultivated these plants in our cold northern climate, and more or less heavy soil, 400 feet above the sea, and I find they require considerable attention, having, like Pansies, a strong tendency, if neglected, to revert to poor colours, size, and form; whilst they respond freely to liberal treatment and a sufficiency of moisture, both in the soil and from the sky. All my best blooms are carefully marked and reserved for seed."

THREE INTERESTING RHODODENDRONS.

It is a pleasure to receive so many varieties and hybrids of *Rhododendrons*. The last contribution to our table consists of three sorts from Mrs. George Ricketts, Fontis Court, Eastleigh, namely, the beautiful hybrid *Lady Haddington*, with flowers of a delightful shade of pink; *Stoneham Beauty*, white, with pink veins, and *White Lady*, white. It will interest *Rhododendron* lovers to know that the plants from which the flowers were cut are between fifty and sixty years old. The parents were raised from seeds sent to England by Sir Joseph Hooker from Sikkim.

DARWIN AND COTTAGE TULIPS.

From Mr. Alex. M. Wilson, East-Keal, Spilsby, Lincs, we have received a delightful gathering of Darwin and Cottage Tulips in many fine varieties. Nothing is more effective at this time of year, either in the garden or house, than these Tulips, and the present day varieties leave nothing to be desired in form and colour. Among those sent

by Mr. Wilson were grand blooms of *Sultan*, very dark; *Maiden's Blush*; *Salmon King*; *Flambeau*, bright red; *Lia d'Orange*; *Scarlet Beauty*; *Clara Butt*, rose-pink (recently illustrated by a coloured plate in *THE GARDEN*); *Nora Ware*, silvery rose; *Vitellina*, pale yellow; *Coridion*, pale purple; *Gessneriana lutea pallida*; *Marguerite*, bluish; and others. Most of the above names are self-descriptive with regard to colour. Mr. Wilson writes: "These flowers are all grown in the open field, and are cut in the bud, as they travel better in that state, but if put into soft water they will grow and expand, and if the room where they are kept be not too warm they will last a fortnight or more."

VERONICA HULKEANA.

Mr. Fitzherbert sends from Kingswear, South Devon, flower-sprays of this beautiful *Veronica*, which, as our correspondent well says, is "the loveliest of all the *Veronicas*, a large plant of which has been a beautiful sight for the last three weeks."

THE PARROT'S BILL.

Mr. Smyth sends from Faunmore, Holywood, County Down, flowers of *Clianthus puniceus*, with the following note: "The *Clianthus* is growing in front of this house. There are upwards of 150 to 200 bunches of flowers on it at present, and it is a magnificent sight. The plant received no protection whatever during the snow and frost of last winter, so it is practically hardy. The beautiful scarlet lobster-claw-like flowers are an admirable contrast to the white, cool, star-like blooms of the *Clematis montana*, which are showing in hundreds against the same wall."

THE FLOWER GARDEN.

THE CULTIVATION OF EREMURUS.

[IN REPLY TO "IDEALGESINTNER."]

IF you have a choice of positions we recommend west or south-west, or, at least, so sheltered from north and north-east wind that the young freshly-made leaves are neither starved nor ruined by undue exposure. It is equally important that the plants do not receive the full sun quite early in the morning. A belt of shrubs, as *Rhododendrons*, would form a splendid protection to the *Eremuri*. The soil should be deep and good, not too much manured, but intelligently employing well-decayed manure and burying this 12 inches deep in the soil. How much or how little you may give depends not a little upon the nature of the soil. It is a good thing to plant in groups, arranging the plants at least 3 feet apart when dealing with any of the *E. robustus* type. By so arranging the plants you will be able to prepare a plot of ground more easily. If you have no shrubs sufficiently large to form a screen, your remedy lies in selecting the most sheltered position you can command. It is of some importance to know the mode of rooting of these plants, and as the main roots radiate from the crown superficially—somewhat like the spokes of a cart-wheel were this laid on the ground—it is necessary that a much larger area of ground be prepared than is necessary for the crowns and roots alone at planting time. Strong crowns may have roots fully 2 feet in length, and their position and attachment to the crown will afford the intelligent worker an excellent object-lesson.

The best planting time is early autumn, October, yet this is not essential. The soil should be prepared in advance, and when the

moment of planting arrives the bed should have some 6 inches of soil removed entirely from the whole area. In the depression thus formed you can arrange your plants to a nicety, and the roots will occupy the natural or horizontally disposed position. If convenient, the depression could be filled in with rich turfy or even clayey loam, mixed with old manure. As to soil, these plants do quite well in light sandy loam, or in strong clayey loam, and provided the soil be deep and good and well drained the rest is not of great import. Given ample room at planting time, an annual mulch of manure, or even an occasional winter watering of liquid manure, the plants may remain several years without disturbance. A good method of dividing is to obtain two ordinary small hand-forks, not digging-forks, and thrusting the prongs of these into the root-stock between any two crowns, give a wrench in an outward direction. The forks should be placed back to back and gently wrenched in opposite directions. In this way the crowns separate quite readily and without undue loss of root. All the strong-growing Eremuri are very tenacious of life, however.

Seedlings may take six years or even longer before flowering. It is a good plan to allow the seedlings to remain two years in the seed-bed, replant them for another two seasons in the reserve garden, and finally, at four years old, plant in permanent positions. Plant these things always when dormant. Seedlings of two years old could be replanted at the end of August, burying the crowns less deeply. Seedling plants may be afforded a light litter covering in winter.

CLEMATIS LUCIE LEMOINE.

THE illustration shows a fine plant of that most exquisite variety of the Florida type, Lucie Lemoine, growing on a wall facing due south. I ought to add that the wall is shared with a Virginian Creeper, which serves as a slight shade to the Clematis, but is not allowed to encroach too much upon it. ARTHUR R. GOODWIN.

The Elms, Kidderminster.

NOTES ON HARDY PLANTS.

CAMPANULA PERSICIFOLIA.

MR. J. CORNHILL'S interesting note on this Campanula and its varieties (page 255) leads me to give my experience with two of the best forms, namely, Backhouse's variety and the semi-double Campanula Moerheimi. Both are fine plants, the single white bells of Backhouse's variety being far larger than those of any form I know, and the flat, semi-double blossoms of Moerheimi being most attractive. In constitution, however, I find them widely different, Backhouse's variety being with me a weak grower, only sending up five or six flower-stems of varying strength, and sometimes dying out, while Moerheimi is of most robust habit, spreading rapidly and throwing up sheaves of flower-stems. The latter has increased so enormously that I have some dozens of plants in a reserve garden, and have given many away; but Backhouse's variety, which I have replaced once, is no larger than when I first procured it. It is, however, such a beautiful thing

that I greatly regret it should not have the constitution of Moerheimi.

S. W. FITZHERBERT.

IMPROVEMENT OF YELLOW TUFTED PANSIES.

FEW hardy flowers have received so many beautiful additions as the yellow Tufted Pansies. Several of the older ones still maintain their position, as in the case of Bullion and Ardwell Gem, but the value of the newer sorts is undoubted. Raisers of the Tufted Pansies have been hard at work for years improving the yellow ones, and since the introduction of A. J. Rowberry (deep rich orange-yellow) and Pembroke (good canary-yellow self) in 1896 and 1897 respectively we have had to chronicle continued

advance. The two sorts just mentioned were among the earliest of the rayless type of the flower originally introduced by the late Dr. Charles Stuart, M.D., of Chirnside, Berwickshire, N.B. Of the many varieties distributed since the years named above, the majority may trace their origin to the two last-mentioned sorts. For several years it was quite an easy matter to trace the parentage of the different sorts to both A. J. Rowberry or Pembroke, but as the lapse of time increases and so many different crosses are made it is now less easy to determine from which variety the progeny originally came. Flowers of the A. J. Rowberry type are oblong or oval in shape, while those of Pembroke and its offspring are circular or nearly so. The fusion of these two sorts has given a progeny bearing flowers that are neither oval nor circular. Almost the whole of them are rayless, although in the spring or early summer faint rays or pencillings are noticeable. With the approach of warmer weather, however, the rays entirely disappear, giving the flowers a richer appearance. The habit of plants of A. J. Rowberry left much to be desired, this being more like that seen in those of some of the Continental Pansies, being neither tufted nor pleasing. In consequence of this undesirable trait the plant was less easy to increase, and stock was sometimes difficult to obtain. Plants of Pembroke possessed a much better habit, although not nearly so tufted as one would wish for. Too much growth was made, so that towards the late summer the plants began to get leggy. As a result of the numerous crosses of these two sorts and their numberless progeny the newer is better in every way. Both flowers and habit have been improved year after year,

and we are fast attaining the ideal in these matters. A careful inspection recently of a bed of seedlings from seed sown last August has revealed many delightful surprises. Yellow flowers largely predominate. It is astonishing the progress they mark in almost every respect. Habit, form, freedom of flowering, and robust growth characterise most of them. The shades of colour range from the palest primrose to the richest orange, and many of the intermediate ones are very attractive. Orange-yellow flowers are in the ascendant, and their gradations are so many that it is a matter of difficulty to recognise much difference in them when apart, yet when a number of blossoms are together one is led to the richest tone of orange almost unconsciously. We have also contrasted blooms of some of the better-known bright yellow varieties with the



CLEMATIS LUCIE LEMOINE.

orange-coloured seedlings just referred to, and the effect is very beautiful. Quite a large number of the newer varieties are very sweet-scented. There is no other hardy plant that will compare with them for a position where a long and continuous display is desired, and, as their culture is of the simplest, no hardy flower garden worthy of the name should be without a selection of the better sorts.

Highgate, N.

D. B. CRANE.

SCILLA SIBIRICA MARGINATA.

AMONG the four or five forms of Scilla sibirica in my garden, this is, generally speaking, the prime favourite with those who see it, although there

are others who prefer the white *S. sibirica alba*. It differs from the typical *S. sibirica* mainly in the colour of its flowers, which are a light blue, generally margined more or less deeply with white. On turning up the drooping flowers, it will be seen that there is more white in the inside of the segments again, but the remainder is of the beautiful light blue of the exterior. This *Scilla* is rare, but I received it from the raiser, Mr. James Allen, who, one grieves to know, is still unable to move about among his flowers as he was wont to do. The flowers do not always come quite true, and occasionally one may come quite self-coloured, but this only happens occasionally, and this year my little clump shows no "rogues" among the flowers. *Scilla sibirica marginata* makes a good variety to grow with the deep blue and the white forms of this popular Squill, and when in the hands of the trade should become a general favourite.

S. ARNOTT.

THE LEMON-COLOURED ALYSSUM. (A. SAXATILE VAR. CITRINUM.)

FEW plants are better known or more valued in the garden than the typical Rock Madwort (*A. saxatile*). Its brilliant yellow flowers, which are produced in a dense mass, and its dwarf habit of growth render it particularly useful for the rock garden, or for planting in the crevices of old walls. Its earliness also makes it valuable for spring bedding, as it will succeed in any light, well-drained soil. The lemon-coloured variety is a charming companion for the above, and as may be gathered from the illustration it flourishes in the same situations, either on walls or ledges in the rockery. In wet heavy ground it perishes in winter, so that it is not suited for such places, but under the conditions shown in the illustration it forms a pendent cushion of close-set flowers. Like the type it is easily propagated by means of cuttings just after it has done flowering, and these, if treated well, will make nice little plants for the following spring. One of the few members of a comparatively large genus with any pretensions to ornamental value, this plant may well rank among the best of early flowering subjects suitable for rock gardens or borders.

W. IRVING.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

THE SIBERIAN CRAB AS A HEDGE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The Siberian Crab (*Pyrus baccata*) is very ornamental as a hedge. Its pinkish white flowers are pretty, and the tree is showy when the fruit, which is borne in great abundance, is ripe. The Dartmouth and the American Crabs also make fine hedges, the former, which is a strong grower, affords a very substantial wind-break, but it is not so free flowering as the other two. Several trees of the Japanese Crab (*Pyrus floribunda*) I have seen this spring have been very beautiful, the shoots being one mass of deep pink bloom. This I should say is worthy of a place in the best collection of flowering shrubs.

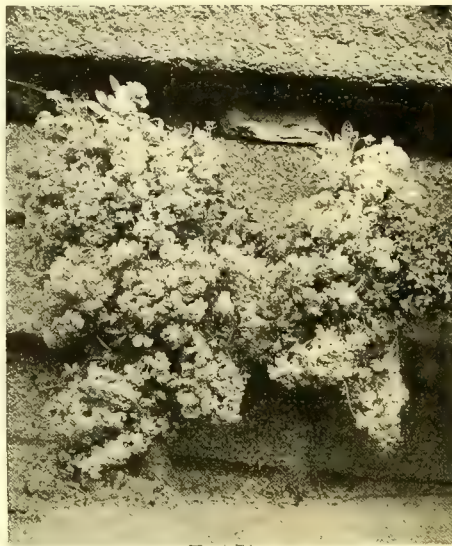
H. SANDERS.

RHUBARB HOBDAYS' GIANT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I note "A. D.'s" remarks in reference to Rhubarb Hobday's Giant. This gained an award of merit from the fruit committee of the Royal Horticultural Society on May 9, and was shown at the Royal Botanic Society's meeting on the 17th, when a first-class certificate was given. The samples submitted had leaf stalks nearly 4 feet in length, and of proportionate thickness.

There is no doubt that it is a most distinct variety. Owing to its large proportions it was suggested that the quality would be indifferent, but having had the opportunity of testing it, I can say that it is equal to any I have eaten. I understand this variety was raised nine years ago, and has since sustained its remarkable distinctness. When seen as grown in the open ground last year, it was even better than the specimens which have been recently shown from under cover. Under any circumstances it should certainly merit attention, and may prove a valuable addition to one of the most useful articles of household consumption we have. It is a little surprising that "A. D." should condemn this on the score that we already have too many varieties; surely one better sort should find a place, even if all the other fifty sorts have



THE LEMON-COLOURED MADWORT ON THE ROCK GARDEN AT KEW.

to be done away with. I quite agree with "A. D." that there are already too many varieties. I would ask "A. D." does anyone suggest the need of all these varieties? But I think the same thing, to some degree, applies to Rhubarb as to Potatoes, that is, we require different sorts for various localities. Also for forcing, some are better, while others are more desirable for the open ground. To make comparisons, I find that previous to the recent boom upwards of 100 varieties of Potatoes had received awards (mostly first-class certificates), while Rhubarbs had only received four awards (one first-class certificate and three awards of merit). And in looking through the list of Potatoes I find they do not include some of the best of the old sorts which are still grown. "A. D." is still ready to welcome new varieties of Potatoes, and I fail to see why he should put any restriction on the introduction of new Rhubarbs. With the present competition growers want the best of everything, and anyone introducing a new variety which promises to be of value should receive encouragement.

Now I am going a little away from the subject, perhaps, but I would refer to the opinion of one of the leading Potato experts, who, when the question of size was discussed in regard to judging Potatoes, stated that size and weight were important points in growing for market. Therefore, a Rhubarb which produces stalks that weigh 1lb. 9oz. each (the weight of one which I put on the scale) should be worth some attention.

A. HEMSLEY.

P.S.—"A. D." tells us that nine members only voted for the award when the Rhubarb

was before the fruit committee. I take it that each of these members knew something of Rhubarb, and it was wise of others who were not well acquainted with what we already have to abstain from voting.

A. H.

IPOMEEA RUBRO-CERULEA OUT OF DOORS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—That this lovely climber can be grown out of doors I proved last year at Wimbledon, and this without any glass at all. The seed was sown in a pot and kept on a sunny window-ledge in a bedroom until the plants showed signs of wanting support. They were then planted straight into a border under a wall facing south-east. This was in June. They grew to about 4 feet high, and flowered fairly profusely, the flowers themselves being perfect. In richly-prepared ground and with plenty of water I think they would have been quite equal to indoor specimens.

M. A.

STREPTOSOLEN JAMESONI.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—On page 314 of *THE GARDEN* of the 27th ult. "S." writes of *Streptosolen Jamesoni*: "How much better this evergreen greenhouse shrub succeeds when planted out as compared to its growth in pots." I venture to think he would change his mind if he were to see the plants in pots grown at New Place, Haslemere. These are between 7 feet and 8 feet high, and have been covered with flowers for over four months. When grown from single cuttings and never stopped in one year, I think it is hardly necessary to keep old plants when such as these can be produced in this time. Planted out against a pillar few things are equal to it, but for ordinary greenhouse decoration, where one requires a change, it is better to grow it in pots. Mr. Swaton, the head gardener, informs me that the great secret of success as a pot plant is to keep the leading shoot tied up to a stake, and not to pinch until the required height is reached. It is in this way that pyramid-shaped plants are produced that are the admiration of all those interested in gardening.

H. EAVIS.

West Down Gardens, Hindhead, Surrey.

THE CAT AS GARDENER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am very fond of the "harmless necessary cat," but not as a gardener. In point of fact, I would much rather be without one of them, as it by nature feeds on birds, and, therefore, is too apt to destroy indiscriminately the useful, the ornamental, and destructive. By far the worst of the latter is the house-sparrow, a pest of the most detestable description, which has one redeeming quality, and this is when it has young in the nest. For the first few days it feeds them on the aphids if it can be got, otherwise young plant, tree, and bush flower-buds are taken for this purpose. Not only is it in its feeding destructive, but it is also wantonly mischievous, besides which, by its combativeness, it drives away our useful soft-billed birds. I differ entirely with Mr. H. M. Swanwick when he says that the blue tit destroys the Cherry and other bloom buds in the spring. At one time both my gardener and I thought so, until, by the use of the field-glass, we found that it was most industriously in search of the ova of moths. Again, I have never known either a blackbird or thrush to eat a slug or even peck about for one. The thrush is one of the most persevering of birds in clearing our gardens of snails, and this it does mostly in the early dawn in summer and winter. Without any doubt the young duck is by far the best bird for ground insect life. It sleeps during the day, and forages the whole night on slugs, caterpillars, aphids, etc., and for this purpose is invaluable. Garden mice commit sad havoc among the bulbs, though not so much

so when a cat is kept, but then this necessary evil, if it be one, destroys and pulls out many of the bird nests, and often kills the parents, the loss of which renders the garden less enjoyable. The blackbird is frequently too numerous, and to the fruit-grower is often wastefully troublesome, pecking as it does holes in many of the best and ripest Apples, while I have known it to clear many kinds of Plum trees entirely of their crop. Couple this with the short duration of its song, only three months out of the twelve, and it is far less desirable than the almost solitary song thrush, which sings for the greater part of the year, during most of which time he is the gardener's friend. GREYBEARD.

AMERICAN v. ENGLISH APPLES— BRAMLEY'S SEEDLING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—While on this subject may I be allowed to say a word in favour of that superb kitchen variety Bramley's Seedling. Thanks to Messrs. G. Bunyard, whose advice I have largely followed in building my fruit store, this Apple is still with me in quantity in good sound condition, and it is my pleasure and privilege at the present date to be able to place upon the table at one and the same time Apples of 1904 with Gooseberries of 1905. Thus my hardy fruit cycle is completed without a break. I should add that the Bramley's Seedling we are now consuming are in perfect condition, as good and finely flavoured as cooking Apples well can be at any season.

H. EUGENE TRACEY.

FORTUNE'S YELLOW ROSE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I should like to add my experience to that of your correspondent upon Fortune's Yellow Rose. I find that very few people know that this lovely Rose will grow out of doors, but in the Thames Valley, planted on a south wall, it grows and flowers very freely. I planted it three years ago, and it has now covered a space of 20 square feet, and at the present time hundreds of flowers are open, and the colour is quite as good as that of flowers in the greenhouse. I find that Fortune's Yellow Rose planted in a good compost of yellow loam, brick rubble, and well-decayed cow manure will grow as well as any of the climbing Roses. J. S.

THE FERN GARDEN.

THE HARD FERN.

(BLECHNUM SPICANT.)

THIS remarkably pretty and thoroughly evergreen Fern, though rarely seen in decent form under cultivation, is yet well worthy of the small amount of care which will render it a permanent ornament, both summer and winter, in cold conservatories. This is especially the case if some of the best of the numerous varieties into which it has sported are availed of, since they require no greater care and are far prettier. One of the chief distinguishing characters of the Hard Fern is its production of two very distinct kinds of fronds, viz., lax-growing, once-divided barren ones, which form a spreading rosette, and much longer, erect, and more thinly made fertile ones, which spring from the centre and form pleasing contrasts. This bifurcated feature is seen in all the varieties, since it is a specific one, and in this respect distinguishes the Blechnum from all our other native species. It derives its popular name of the Hard Fern from the great toughness of its fronds, and since these are of a dark lucent green, and retain this greenness well into the second season, it is one of the most satisfactory winter Ferns conceivable. In many parts of the country it is very plentiful, especially in moist

situations, where it clothes sloping hedge banks with its diverse frondage, while on moorlands it frequents the sloping sides of mountain streams and in a more or less stunted form appears in colonies among the Heather, even up to the tops of our highest mountains.

This, of course, shows its perfect hardiness. It attains its greatest luxuriance in open, loamy leaf-soil, and such should be used under culture. It has, however, a great antipathy to lime, either in the soil or in the water supplied, and on this account rain water should always be used for it, and not the usually hard water supplied from the mains. In outdoor rockeries it should be planted on slopes facing north and under the lee of projecting stones, and will then form extremely pretty groups of rosettes, relieved, as we have said, by the gracefully curved, erect, fertile fronds.

In pots it does very well indeed under glass, provided it be not allowed to get dry, which is likely to be fatal to it as a moisture lover. So great, indeed, is its liking for damp situations, that, unlike many Ferns, when once well established, it thrives in pots standing in filled saucers. It is not, however, advisable, under glass, to water it overhead, unless plenty of air be subsequently given, as this is apt to induce a brown rot to the great detriment of the fronds. With these few cultural hints we may now turn to the best varieties recommended for cultivation. The Blechnum, like most of our native Ferns, has sported under wild conditions into tasselled forms and forms which are more divided than the common type. Where the Fern prevails in quantities it usually needs no long search to find fronds with forked tips, and now and again we



IN A WEYBRIDGE GARDEN.

(From a photograph by Alwyn Bilney.)

come across specimens in which all the fronds are forked (B. s. furcans). This, however, is only an indication of what the plant can do, for numerous specimens have been discovered in which not merely forks but bunches or fans of many divisions occur at the frond tips, such as B. s. cristatum, B. s. ramo-cristatum, B. s. multifurcatum Barnes, and others to be found in catalogues. In all these the erect, fertile fronds are also crested, looking something like green flower-spikes, or, in the best forms, even green flowers proper. In another sportive direction we may, but more rarely, find wild plants with the side divisions saw-toothed instead

of smooth, and this merges into varieties which are twice divided or nearly thrice, as in B. s. serratum Airey, B. s. plumosum Airey, and B. s. plumosum Forster, while probably by crossing we have B. s. serrato cristatum, in which both characters are united. In a third direction we have such pretty forms as B. s. lineare Barnes, with very narrow, strap-like fronds scarcely divided at all, and B. s. concinnum Drury, with the side divisions like little scallop shells, round and deeply saw-toothed, found by the writer on Exmoor. Approaches to these varieties are B. s. strictum and B. s. contractum. B. s. Maunderii is a dense little dwarf, all crest, and various other varieties might be cited, all of which combined would form a beautiful little collection, either for a cold frame or a cold conservatory facing north, where flowering plants are handicapped for lack of sun, and Ferns favoured in proportion.

CHAS. T. DRURY, V.M.H., F.L.S.

TWO SURREY GARDENS.

HOT, sunbaked Weybridge has many beautiful gardens. It is long since we drove through the heathy, Pine-clad country to the gardens of one's friends—Dr. Lionel Beale, the late Mr. Mackintosh, whose Rhododendrons were the glory of his leafy retreat, and the late Mr. G. F. Wilson—but a few days ago we again renewed acquaintanceship with Weybridge Heath, and again listened to the wind amongst the Pines on those breezy uplands. Generations of gardeners come and go as Nature orders, and some gardens which we remember as cared for by men who loved gardening for its own sake have fallen into neglect, but others have taken their place, in which the plants that were unknown a generation ago blossom exceedingly.

The garden we visited on a recent May day was that of Mr. W. A. Bilney, Fir Grange, Weybridge Heath, who in six years has made a desert smile with beautiful colouring. It is in an informal garden, with many hardy flowers grouped in the places appropriate to the surroundings, here a mass of the finer Azaleas, there Rhododendrons grouped for colour, then a drift of Ostrich Fern, and a wild, water, rock, Bamboo garden, and the many features that go to the making of a restful, homely, and satisfying retreat.

It is pleasurable to ramble through the leafy walks; there are leafy walks everywhere, a path through Furze and Broom cover even leading from the railway station to the house. The Ailanthus glandulosa and yellow-flowered Horse Chestnut are conspicuous near the entrance, and against the house front, basking in the sun as it shines full upon them, are bushes of the Choisya surfaced over with flowers which scent the air with a strong nutty perfume. Euphorbia pilosa, the Gentianella in luxuriant colonies, double Arabis, billowy masses of yellow Alyssum, and other alpine flowers suggest the colouring and variety of things that will make this garden one of the most interesting, for its dimensions, in Surrey when age has clothed the stones and earth with greater verdure. The water garden is quite a success, carefully planned, and appropriately planted. Arenaria montana on a higher part is hidden with its silky white flowers, Japan Iris sheaths are peering through the leaves, and Primula japonica is strong and leafy in the moisture which is allowed to soak the soil for this great Primrose of Japan.

Passing from thence to the wild garden flowers are everywhere abundant, each family as far as it is possible grouped together to enable its full beauty to be seen. The Azaleas occur delightfully at odd corners, exactly in the place where relief is desired from the Pines and other trees, through which the sunlight breaks in on the under growth. Sheltered in woodland is a group of *Lilium pardalinum*, which will give a warm note of colour when in flower. Mr. Bilney has planted his garden in such a way that each season brings its own flowers—Daffodils, Tulips, Primrose, Scilla, Lily, and other plants each in their appointed time beautifying the surroundings. Mr. Bilney has been happy in his planting of the Lily. A group of *L. pardalinum* is one of the finest we have seen, and will provide a feast of colour when in bloom.

Pleasant surprises occur where one least expect them—little dells, from whence gravel has been dug, but now the home of many rare hardy Ferns. One winding walk is full of flowers—*Primula japonica* in many varieties having made remarkable leaf-growth, *Trillium grandiflorum*, a break of the *Struthiopteris germanica* (the Ostrich Fern), and *Rubus deliciosus* against crimson Gesner's Tulip is a happy touch of colour. A Bamboo garden in a sheltered corner has been recently

since the days of the late Mr. G. F. Wilson, but is being gradually equipped for the purpose for which it was intended. A handsome house has been erected for the superintendent, with commodious offices and a council room, and the range of glass houses is in working order. On the May day when we again rambled through the little leafy ways which beset this woodland garden many things were in flower—*Primula japonica* in wonderful variety of colouring, grouped with a deep orange variety of Welsh Poppy, *Anemone sylvestris*, Lupin, and Siberian Iris by waterside, and remarkable colonies of *Lilium giganteum*, seedlings for the most part, but promising a great display later in the year. The Azaleas were a gorgeous picture, soon to be followed by the Rhododendrons. A plant of *R. Gauntletti* was in full flower, and a noble Rhododendron it is, large, pink and white in colouring, and suggestive of Pink Pearl in the shape, size, and tinting of the flowers. *Cypripedium Calceolus*, *C. acaule*, *Shortia galacifolia*, *Schizocodon soldanelloides*, and *Epigaea repens* are plants which are noteworthy here, but these have been described more than once in THE GARDEN. Under the guidance of Mr. Wright an excellent school of horticulture should be established at Wisley. The council has provided a good library for the

rock gardens, and flowering so early it is the more welcome. It was in flower a fortnight before the common white *Arabis*, growing side by side, and receiving the same treatment. The bed has been much admired, first being studded with Daffodils Van Lion, followed by Tulips Keizerkroon, yet perhaps now looking at its best in its own richness of colour.

F. PERKINS.

The Limes, Stratford-on-Avon.

IRIS PERSEPHONE.

THIS is a large and handsome hybrid Iris, belonging to the *Regelio-Cyclus* group. It is beautifully veined with purple-black upon a white ground. It is a large and extremely showy Iris. It was exhibited by M. C. G. Van Tubergen, jun., Haarlem, Holland, and received an award of merit from the floral committee of the Royal Horticultural Society on the 23rd ult.

THE ROSE GARDEN.

ROSE W. ALLEN RICHARDSON.

As good as this Rose is when growing against a wall, and it succeeds admirably in that position, I think its usefulness for supplying early flowers when planted



A VALUABLE PURPLE ROCK CRESS (AUBRIETIA PERKINSII).

planted, and the little Rose garden, in which the varieties are grouped in colours, is a pleasant feature in summer days, while no opportunity has been lost of planting Roses against the trees. We were interested in the growth of *Rosa wichuraiana* and Pink Roamer under a Fir tree. A pretty pergola of *Laburnum* was in flower, and little leafy ways that may be fashioned with such trees are grateful retreats in the heat of a summer day.

Fir Grange is well known to Orchid growers, for here is a complete collection of *Dendrobiums*, which, it will be remembered, Mr. Bilney has shown in the Drill Hall of the Royal Horticultural Society. These were not in flower, except a very fine form of *D. dalhousieanum*, but *Lælia lawrenceana*, *L. schilleriana*, and *L. purpurata* made bright splashes of colour. We shall watch the development of this garden with interest.

WISLEY.

A drive of six miles from Mr. Bilney's house, through the most beautiful of Surrey scenery, brings one to another garden—the garden of the Royal Horticultural Society. Mr. Wright, the superintendent, is accomplishing a good work here in directing the trials of flowers and vegetables, which can now be carried out in a fair and satisfactory way. The garden has undergone little change

students, and a meteorological station is in course of erection on a neighbouring hill top. A quiet and useful work may be continued here under great advantages. There are many acres at disposal, with the little woodland garden in the hollow, a setting of flowers in a beautiful land. It is welcome news to be told that the Fellows of the society appreciate this beneficent gift, for no less than 100, and sometimes twice that number, ramble through the grounds each day.

NEW AND RARE PLANTS.

AUBRIETIA PERKINSII.

A BED of this *Aubrietia* is represented in the illustration, which was taken on the 1st ult. I raised it in 1893, but as it has only been distributed privately it is not well known. The colour is of the deepest purple, with a tiny white eye. The petals are round, and as they meet each other this gives them a still greater richness. It is a very strong grower, being 10 inches high, and has been full of flower since the middle of March, and will continue to bloom to the middle of June. This uncommon colour makes it most desirable in all spring and

out in a cool house is more strongly emphasised. For giving flowers in April it is quite one of the best, and its coppery yellow tinted flowers are always appreciated. Planted in good holding soil and given abundance of water when in full growth, and occasionally liquid manure, it throws out vigorous shoots, and consequently a full crop of its pretty buds and blossoms.

E.

ROSE LADY GAY.

THE splendid specimens of this Rose exhibited by Messrs. William Paul and Son at the Temple show illustrated its great merit as a decorative variety for arch, pillar, or pergola. The Rose has the same graceful habit as Dorothy Perkins, but it differs considerably in colour, which is of the shade of *Begonia Gloire de Lorraine*, and in the size of the individual blooms, which are quite 2½ inches across. The lasting powers of the blossoms when fully developed are remarkable. One can conceive of nothing more beautiful in the floral way than the long trails of blossom which this sort will produce, when laid on dinner tables or used for other decorative work, and gardeners would do well to plant it freely next autumn. Another delightful gem is *Debutante*. Here we have the dainty colouring of *Ivy-leaved Geranium Mme. Crousse*, and the exquisite little buds are as prettily fashioned as a show bloom, but, of course, very diminutive. This variety is practically perpetual flowering,

and as such is a great boon. What lovely objects these Roses will make when procurable as standards, not necessarily on very tall stems, although this would be desirable! A centre plant as a standard, with groundwork of Mme. N. Levavasseur, would be charming. As some time may elapse before these Roses are procurable on standards, amateurs should bud their own if they happen to have a few hedge Briars suitable for this purpose.

P.

ROSE MME. DE WATTEVILLE.

THIS is a grand Rose for culture under glass, but I would advise that it be procured upon a half standard or standard Briar. Somehow the hedge Briar is peculiarly adapted to the Tea Rose, and yields the best quality of flowers. When the buds first appear they do not give much promise of the wonderful blooms that they will frequently develop into. Mme. Cusin seems to be a near relation of Mme. de Watteville, yet they are perfectly distinct. Both are very tender outdoors, but grand flowers may be produced under glass. Standards or half standards planted out under glass make enormous heads, but one is apt to allow the heads to become too large, and weakly flowers result. Prune hard each year, cutting back the one year old wood to two and three eyes. Never cut into the old wood, but some old shoots should be annually discarded. Some have called this the Picotee Rose, its exquisite petals being bordered with rose-pink. The outer petals are like wings, and give the Rose a most distinct character. It is sweetly fragrant. There is a climbing form of this Rose of much value for greenhouse roofs or walls.

P.

ROSE FORTUNE'S YELLOW.

IN your notice of Rose Fortune's Yellow, in THE GARDEN of the 20th ult., you do not mention that it does very well on a house wall facing west. I planted one, on its own roots, here about four years ago, and both last year and this it has been a mass of flowers up to the bedroom windows. I give it some wood ashes and a few Fir boughs during the winter, but no further protection.

Suffolk.

E. A.

ROSES AT THE TEMPLE SHOW.

THE Rose groups formed one of the most beautiful features at the Temple show, and prominent in almost every group were the pillars of such Roses as Dorothy Perkins, Blush Rambler, Crimson Rambler, Helene, Waltham Rambler,

and Lady Gay. The last is a most lovely Rose. It may be briefly described as a much improved Dorothy Perkins. The flowers are larger, most freely produced, of a richer colour, and the plant

makes a lovely pillar Rose, and so does Helene, which has large single, blush-coloured flowers, with yellow in the centre. Philadelphia Rambler, which obtained an award of merit, did not appear to be of a very pleasing colour—a dull reddish crimson—but possibly in the dull light of the tents it was not seen at its best. The large standards of Souvenir de Pierre Notting were a delightful feature of some of the groups. A new Hybrid Tea that attracted much attention was David Harum. It is of excellent form, the soft rose-coloured petals curling to a point at the apex, making up a flower of perfect shape. The plants shown were freely flowered, and evidently this Rose is a good one to grow.

ROSE MME. ABEL CHATENAY.

INSTEAD of the popularity of this Rose waning, it seems more in the ascendant than ever, and the variety is not seen to better advantage than when forced. Market growers are now finding out its great value, and are planting it largely. It is not uncommon to obtain blooms 5 inches across and 3 inches deep, and there is no Rose in cultivation of such a taking colour. Moreover, it is an ideal variety for this country for growing on the long-stem system. We cannot compete with our American friends in this matter, but here is a Rose that may be cut with 2-feet to 3-foot stems, and surely that is long enough. All who find a demand for Roses of quality during

April, May, and early June should plant this Rose under glass. Another beautiful Hybrid Tea for a similar purpose would be Antoine Rivoire. As with Mme. Abel Chatenay, none of the new comers can surpass it in beauty, for there are quality, form, and dainty colour to please the most fastidious. Although these Hybrid Teas would not quite compare with the true Teas for profusion or for ever-blooming propensity, they possess other traits not found in the Teas, of which firmness of petal and stiff stems are the most characteristic. Young plants planted under glass next month would be available for cutting next spring. The ground must be well trenched and half-inch bones added, together with good farmyard manure. Keep the plants growing without a check during the summer. There is many a greenhouse or viney that could be more profitably employed as a Rose house.

P.



THE NEW

IRIS

PERSEPHONE.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

PLANTING OUT SEEDLINGS.—The beginner frequently makes the mistake of not fastening the plant firmly in the soil, especially when planting with a dibber. If a little plant is placed loosely in the soil, especially during a dry time, the plant withers and dies before the roots get a sufficient grasp of the soil to supply necessary nourishment. A good planter will make a hole just the right depth, so that the end of the root may reach the bottom, and with one move of the dibber thrust into the ground a short distance from the stem will finish the operation.

Hanging the Plant Up.—This means making a hole deeper than is required, and the inexperienced planter leaves the plant hung up, as it is termed, with the bottom of the hole not properly closed up. If the plant is a long-lived one, such as a Cabbage, it may ultimately get a grip of the soil and establish itself, but delicate plants will perish before that happens. Planting with a dibber is simple work, but it takes a little practice before it can be properly done.

Watering Newly-planted Trees and Shrubs.—The most important thing is to be in time. When discussing the causes of trees and shrubs dying from transplanting one often hears the remark, "I am sure the plants have been well watered;" and perhaps they have, after the mischief has been done. If the person who is supposed to do the watering waits till the trees or shrubs, especially in the case of evergreens, are showing signs of distress, there will surely be dead shrubs to remove. We must anticipate the wants of the plants. In a dry season like the present mulching alone will not save the plant.

Damping the Foliage.—Deluging the soil containing the roots is not an unmixed good, and neither is it necessary. There must, of course, be moisture in the soil or the roots cannot work, but in a dry time with bright sunshine there is often more value in a sprinkle overhead with the hose or syringe than so much root watering, which only sours and lowers the temperature of the soil. With a mulch of manure and daily sprinklings the most difficult things will not give much trouble.

Value of Shading in Dry Seasons.—I have often, when transplanting a difficult subject late in spring, found the value of a flimsy temporary shade. A mat or a bit of canvas or tiffany secured to sticks, so as to afford shade for a few hours during the hottest part of the day, often makes the difference between success and failure. The same course may be adopted when sowing seeds of choice flowering plants. It is much better than starving the soil with cold water.

The New Nicotiana.—By this I mean, of course, *Nicotiana Sanderae*, which bears rich rose-coloured flowers that have been so freely illustrated by coloured plates in gardening journals at home and abroad. To judge from the specimens already exhibited it is a lovely plant, and one that the hardy flower lover will have every reason to be thankful for. I write this note to draw attention to the possibility of growing it in a tub. If the border is full (and often it is much too full) do not crowd it in among other plants already too closely planted, but plant it in a tub, well draining the latter and filling with fairly rich soil. I have one plant in a tub and one in the border, but the former promises so far

to be the finer. If I am successful in producing a specimen as fine as those I have seen exhibited, then one will be quite enough to fill the tub. I should think from its habit of growth and flowering, that it will prove an ideal tub plant, and make a very handsome ornament in the garden.

The Rose Mallow.—This is the popular name of *Lavatera trimestris*, an annual Mallow-like plant that grows 3 feet to 4 feet, and under good cultivation produces a wealth of lovely rich rose-coloured flowers in August. It is easily raised from seed sown out of doors in the border where the plants are to flower. It is late, but not quite too late, to sow seeds now. Each plant must have plenty of room, so the seedlings must be well thinned out. Great care, too, is necessary not to let the plants suffer from the want of water. If this happens the lower leaves fall, and the plants look bare and unsightly. To ensure a good season of flowering plenty of water and occasional feeding are essential.

Fairy Roses.—The true Fairy Roses (*R. lawrenceana*) are very rarely met with now, although years ago they were grown in pots by thousands by market growers. The *lawrenceana* Roses



THE FAIRY ROSE.

belong to *R. indica*, from which species our glorious Tea-scented sorts emanated. For all practical purposes they should be grown as Tea and Monthly Roses, and prefer a somewhat dry soil, hence their suitability as edgings to Tea Rose beds. *Gloire des lawrenceanas* is one of the best; its colour is dark crimson. To a large extent the introduction of the perpetual-flowering multiflora Roses—incorrectly known as *Polyantha* Roses—has somewhat displaced the Fairy Roses, and no one will want to grow the latter when once they have planted the *Polyantha* Roses. These are so beautiful and so varied that little wonder is manifested at their increasing popularity. The delightful *Aschenbroedel*, one of the loveliest little pot plants imaginable, the showy *Mme. N. Levavasseur*, resembling a dwarf *Crimson Rambler*, the exquisite *Eugenie Lamesch*, the ever-popular *Perle d'Or*, together with the snowy white *Anna Marie de Montravel* and the rose-pink *Gloire des Polyantha*, form half-a-dozen of the best, and all are perpetual flowering.

The Variegated Moneywort (*Sibthorpia europaea variegata*) is rather a pretty basket plant for the cool house, is easily propagated from cuttings, and thrives well. A very useful companion is *Sedum carneum variegatum*. This throws out long shoots perfectly variegated; in fact, it comes a better colour under glass than outside. It is useful for draping Fern baskets, and may be pegged in close at first.

Special Sites for Various Plants.—Cannas (or Indian Shot Plants) make splendid masses in sheltered gardens. When the beds were first prepared for the Cannas in the sub-tropical garden in Battersea Park, a foundation of broken bricks was placed in the bottom to give root warmth and ensure free drainage. The result was in favour of the treatment. And this free drainage with its accompanying root warmth has been tried with advantage in many difficult situations since in the country for choice Lilies and other things. If we have a plant which fails under ordinary conditions, create a site for it.

Shaded Front Gardens.—The front gardens of many small town houses face north, north-east, or east, and usually they are badly neglected, and sometimes not planted at all, owing to their unfavourable aspect. They present a very different appearance to the more favourably placed garden on the sunny side of the house. It is a mistake, however, to neglect these front gardens, for they need the most careful attention if they are to be made presentable. The work will not be in vain if it is intelligently carried out. I have succeeded in greatly improving a small front garden that gets hardly any sun and that faces north-east. The soil was heavy and poor, so I worked it well, digging it over deeply at intervals, and incorporating some well-decayed farm-yard manure. As a result the soil has much improved in quality.

What to Plant.—Ferns I knew would succeed, so I planted a few of these in the worst position, the corners chiefly. I devoted most space to the Japanese Anemone, a plant that does very well in a shaded situation. In the midst of these Anemones I planted a clump of the scarlet Lobelia (*L. cardinalis* Queen Victoria). Around the edges of the borders I put Violas. All these with the exception of the Lobelia may be classed as easily-grown plants, and need nothing more than a fairly good soil to start with and plenty of water when they are growing freely. It is wise to lift the Lobelia roots in the autumn and store them during the winter, for they are liable to decay owing to the winter cold and wet. I am sure that anyone who planted such an unfavourable position as I have mentioned in the manner indicated would have no reason to complain of the results.

Lilies in Tubs.—For those whose garden space is limited tub gardening offers great possibilities. There are few plants that thrive in the border that cannot be grown successfully in tubs. In fact, better results are often obtained, because the tub plants are more easily and more regularly attended to as regards watering, feeding, thinning, &c. They are under more complete control. In the matter of watering, however, they need close attention, for naturally with sun and air playing completely around them the soil dries much more quickly than with plants in borders. One of the finest garden pictures I remember was a display made with Lilies in tubs, *L. tigrinum*, *L. speciosum* Melpomene (heavily marked with red), and *L. s. Krætzleri* (white). The tubs must

be well drained and filled with a compost of loam two-thirds, one-third leaf-soil and decayed manure, with some sand intermixed. Plant the bulbs some 6 inches apart and 4 inches deep, leaving space for top dressing. If the bulbs are good strong ones and the plants when growing freely are well supplied with water and given manure occasionally, a delightful display of flowers will result in late summer.

The White Broom.—No spring garden picture is complete without a bush or two of this beautiful plant, whose slender shoots regularly each May become a mass of flower. It makes a



ONIONS UNTHINNED AND THINNED.



charming feature in the garden, whether planted to fill a bed or as a solitary plant in the shrubbery or at the back of the rock garden. The cream-coloured Broom Cytisus præcox is hardly less profuse flowering, and is equally deserving of a place. These are essentially valuable plants for the beginner, but they take up rather a lot of room, and therefore are not quite suitable for the smallest gardens. If the room can be spared for them they should certainly be planted.

Humea elegans.—This a graceful plant for decorative work in a 7-inch pot, and is useful for centres of beds in the flower garden. It is an old thing that was common thirty or forty years ago, and is likely to come to the front again. It is a biennial. Seeds sown now, or within the next month, will make good specimens next season.

Remove Suckers from Roses.—The Manetti stock is a great sinner in this respect, and all plants on this stock should be kept under close observation, and all foreign growths springing up from the base removed promptly. There have been cases where the growths from the stock have killed the Rose proper, but a timely hint may avert this.

A Beautiful Spiræa.—One of the showiest Spiræas now in flower is *S. confusa*. The slender shoots are wreathed with heads of tiny white blossom. So freely does this Spiræa bloom that a large bush becomes almost a mass of white. If planted close by some of the rich dark-foliaged forms of Japanese Acer a delightful colour association results.

Thinning Apricots and Peaches.—Two fruits to the square foot of wall surface is a good crop for Peaches. Apricots often carry double the number without injury if the trees are properly nourished, but to obtain good crops annually, and carry the trees through a healthy and reasonably long life, the load must be proportioned to the strength of the tree, keeping in mind the amount of extra feeding intended to be given. In good gardens the matter of cropping and feeding is usually properly adjusted, but beginners seem to lack the courage to thin fruit sufficiently.

The Question of Feeding Fruit Trees must remain an open one, and there is room for experiment; so much depends upon the character of the soil, its drainage, and temperature. But when a

tree has been heavily laden we have always found a couple of soakings of liquid manure, during and immediately after stoning, add considerably to the value of the crop. Of course something that will act quickly, such as guano or nitrate of soda, should be given at that stage.

About Onions.—If the Onion fly is troublesome, freely dust between the rows with soot when the plants are damp, and wash it in by watering the next morning. The soot makes the soil distasteful to the insects, and also encourages the growth of the plants. Thinning is a most important item, and must be done before the plants are crowded, otherwise they become drawn and weak, and never develop so well as they would have done had thinning been well carried out. For ordinary purposes a distance between the plants of 6 inches will be enough. Throughout the summer the surface soil

about spring-sown Onions should be kept loose by hoeing, as this checks evaporation, and therefore tends to keep the soil moist. A thin dressing of sulphate of ammonia, applied twice during the summer, and keeping the soil free from weeds are also very helpful towards good bulb production.

GARDENING OF THE WEEK.

FLOWER GARDEN.

THE present is a busy time with the flower gardener, for in addition to the general summer bedding being in full swing, a host of details have to be promptly seen to. If the beds and borders have been prepared as suggested in last week's calendar, begin planting the hardier of the tender subjects, observing the greatest care that they are all well hardened before being transferred to their summer quarters, and that everything is free from aphids, caterpillars, and other pests. Turn out no plant in a dry state, for it is difficult to soak the solid ball of soil and roots after planting. Follow up as far as practicable with watering and mulching, and clear up as the work proceeds the litter of empty pots, boxes, &c., invariably accompanying bedding out. Happily nowadays there is ample choice in the matter of material which one can utilise with approval, thus to a considerable extent avoiding the eternal repetition of yellow Pyrethrum and Calceolarias, blue Lobelia, and scarlet Geraniums of past times. But with the increase of variety available there comes increased responsibility in the matter of effectively arranging the colours either for contrast or harmony, as the case may be, and according to taste and surroundings. Avoid, on the one hand, too many mixtures, which often produce patchiness, and, on the other, too much monotony and repetition. Endeavour to strike the happy mean.

BIENNIALS AND SOME ANNUALS, such as Wallflowers, Canterbury Bells, Campanula pyramidalis, and others, Columbines, Perennial Poppies, Sweet William, Forget-me-not, &c., should be sown forthwith for producing strong sturdy plants for putting out in October for the next spring's display. It is early yet to sow most of the dwarf hardy annuals so indispensable for this purpose.

PERENNIALS need frequent attention. Thin out weak flowering growths, staking, feeding, and watering. The latter operation must be done thoroughly, for mere dribbles and sprinklings to plants in a dry state are worse than useless. In watering, saturate the soil, and if practicable mulch with cocoanut fibre, leaf-soil, spent Mushroom manure, or any light material most easily available. This will encourage root action and conserve moisture.

MOWING GRASS IN WHICH BULBS ARE PLANTED.—Bluebells, Daffodils, and other bulbs naturalised in the grass in the wild garden and woodlands skirting the lawns are now sufficiently ripened to admit of the grass being mown over with the scythe. It will do the bulbs no harm, and will improve the general appearance, and possibly prevent coarse grasses and weeds from seeding quite so freely as if left.

If time and means permit remove seed-pods from Rhododendrons and Azaleas as fast as they form. The various BROOMS are very beautiful just now. Among seedlings of *Cytisus scoparius andreanus* there will probably be much variation of marking and intensity of colour, with some selfs. Select while in bloom those to be retained, marking them for future guidance. Personally I prefer, as a group, the seedlings with these variations to the true *C. andreanus* alone, and must admit that I admire a few good selfs (yellow) amongst them. They show the more sombre blooms to better advantage.

The Gardens, Tan-y-bwlch, North Wales. J. ROBERTS.

ROSE GARDEN.

WATERING may be necessary on light soils, but if done at all let the application be a good soaking. A mulching the next day with some spent hot-bed manure would be advisable; failing this use the hoe. Dusty soil makes a capital mulch if drawn over the watered land.

LIQUID MANURE should be applied to all Roses that are showing bud, and especially to Tea Roses upon walls. Many are planting the lovely Tea Roses, such as Maman Cochet, Marie Van Houtte, &c., against low walls, and splendidly do they grow. Make a saucer-like cavity around each one, and see that it does not suffer for want of liquid manure. If not convenient to make up liquid with cow manure, some fish or other guano can be applied. A teaspoonful per plant given about every fourteen days is a very safe application. If scattered on the ground and watered in this will do as well as mixing in water. Where good liquid manure can be made up, as advised last week, strong-growing healthy plants that show bud may be given three quarts of the diluted liquid twice a week. Where liquid or artificial manures are given it is well to be cautious, and give a watering of clear water first, especially after a long spell of dry weather, if not, the little rootlets are injured. An effective liquid manure can be made by dissolving half an ounce of saltpetre and half an ounce of phosphate of potash in a gallon of water. This could be given to vary the diet, but there should be an interval of a week or so between each application. Do not allow any of this chemical manure to touch the foliage.

DISBUDDING must be carried out if quality of blossom is wanted. See that the centre bud is not faulty before removing the side buds. Do not disbud Roses wanted for garden decoration, or you rob them of their greatest beauty.

SUCKERS should be suppressed when found. Look for the suckers of Manetti stock. Tie up any half-pendulous sorts, such as Marie Baumann, or the blooms will touch the soil owing to their weight.

MAIDEN PLANTS, i.e., those budded last summer, will need attention. Tie to supports of some kind, or they quickly break in high winds. Remove all wild shoots from the budded Briars to encourage the Rose buds to grow.

HARDEN OFF POT PLANTS that have blossomed preparatory to plunging outdoors. Repotting may be done now or during July, but not later if required to force next year.

POT ON RAMBLER ROSES, such as Lady Gay, Dorothy Perkins, The Farquhar, and Debutante, also the charming Baby Rambler, as it is called, Mme. N. Levassieur. It will make a splendid conservatory plant, and is useful for table work. New Roses should be purchased now and potted.

EXHIBITION BOXES, TUBES, &c., should be looked over, as it will not be long before show-time. Beginners would do well to take the National Rose Society's standard of size of box, and the best tube is the Foster.

CLIMBING ROSES under glass should be gradually cut back to the main stems as the plants go out of flower. New growths are encouraged, which blossom best next year. Apply plenty of overhead moisture, also do not stint the plants at the roots. P.

INDOOR GARDEN.

HYDRANGEAS.—This is a very suitable time for inserting cuttings. Usually plenty of growths can be found on the large plants which are not going to flower. Insert singly in small pots, and use a light, sandy compost. They will root readily in a close frame or bell-glass. Keep shaded from the sun, and do not allow the cuttings to flag. Admit air gradually when rooted. Pot into 3-inch pots, and pinch out the point when growing freely. Allow each plant to make three shoots, and for the final shift 6-inch pots should be used. A batch of cuttings may also be inserted in August for smaller plants in 5-inch pots to carry one flower-head. Feed the plants coming into flower liberally with manure water. Admit air freely at night, and remove the lights during the day if the plants are in frames. Shade the plants for two or three hours during the hottest part of the day.

CLIMBERS.—Keep the growths tied and thinned as required. The stronger-growing sorts will benefit by a top-dressing of farmyard or other suitable manure. The majority need a good soaking of water at least once a week. The growth of plants on the roof must not be allowed to become so thick as to shade the pot plants beneath. Some would no doubt say, why have them at all? In small houses it is not necessary, but the roofs of large houses look very unsightly without something to break the otherwise uninterrupted view of paint and glass. Shorten back the growths of *Climanthus punicus* when out of flower. Mildew on Roses, Lathyrus, &c., must be checked immediately it is detected. Spray with potassium sulphate dissolved in water, or dust with sulphur. Always have one or two plants in pots, preferably sorts not already in the house, to take the place of old, worn-out specimens.

CALCEOLARIAS.—Sow the seed in shallow pans, using a compost of equal parts loam and leaf-mould, adding plenty of sand. Make the surface smooth, and water with a rose. Sow the seeds thinly, covering lightly with fine silver sand. Place in a cold frame, covering with a sheet of glass and paper till germination begins. Then remove the paper and gradually admit air by raising the sheet of glass. Should cockroaches or slugs be at all troublesome place the pan on a pot in a saucer of water. Besides growing the mixed strain, the beautiful yellow variety Cloth of Gold is worthy of attention, and it comes true from seed.

PRIMULAS.—In cool houses, especially for the alpine and the amateur's greenhouse, many of the hardy spring-flowering species and varieties are worthy of attention, and they flower a month or so in advance of those in the open air. Treated in a similar way to Auriculas, very good results can be obtained. *Primula japonica* is perhaps the best known. In addition to the old purple variety, a large number of colours, varying from white to deep crimson, can be obtained from a mixed packet of seed. Sow the seed as soon as obtained in pots or pans and place in a cold frame. Germination is very irregular, so that it is advisable to remove the seedlings from the seed-pans when large enough to handle. Others worthy of pot cultivation are *P. denticulata*, *P. rosea*, *P. sikkimensis*, and *P. cortusoides*.

PELARGONIUMS.—Show varieties are now in full flower. Admit air night and day. Water carefully, or the plants

at the tips when even slightly bruised. Any of these roots that are long enough should by degrees be carefully tied down with their points facing the sphagnum moss, into which they will soon root and help the plants to grow vigorously. If plenty of roots can be guided inside the pot in this way, they also greatly assist the plants to retain their lower leaves during the resting period. These remarks are also applicable to such Vandas as *V. tricolor*, *V. suavis*, &c., which enjoy the moist airy temperature of the intermediate house during the summer months.

The Mexican *Laelias*, such as *L. anceps*, &c., have now started well into growth, and should be given liberal treatment in every respect. The house should be thinly shaded, the blinds being let down in the morning whenever the sun is strong enough to overheat the foliage of the plants. Ventilate freely during the hottest hours of the day. The blinds should be drawn up early in the afternoon, and the house closed so as to raise the temperature to between 90° and 95°. When the house is closed, give the plants a good syringing overhead, and by 8 p.m. the house will be drier, and the temperature considerably lessened. Then the lower ventilators may be opened wide, and when finishing up for the night a little air may be put on at the top. As these plants delight in a cool atmosphere at night, the temperature may be allowed to fall to between 60° and 65° by the morning.

Odontoglossum citrosimum is also a Mexican Orchid, and will do well under similar conditions. If practicable, the plant should be suspended well up to the roof, and

the Vines longer than earlier ones, and this, combined with heavy cropping, is likely to impair the constitution of the Vines for several years. Commence thinning the berries as soon as possible, especially Alicante, which as a rule sets very thickly. There is danger of damaging the bunches if thinning is delayed. Fire-heat may be dispensed with as much as possible during mild weather, and plenty of air should be admitted early in the day, increasing it as the sun gains in power. Leave a little on the top of the house all through the night. Borders which are full of healthy roots may be given copious supplies of liquid manure in a diluted state. Keep a sharp look-out for red spider, especially where Strawberries have been in close proximity to the foliage. Sponge the leaves with a little soapy water, with a little sulphur added. This is the most effective way to deal with it.

EARLY MUSCATS.—To assist these to colour and finish perfectly the leaves should be moved aside so that the bunches are only partially shaded from the sun's rays. Keep the laterals pinched. Continue to give the borders plenty of water until the Grapes are ripe. If the borders are not mulched this should be done before the Grapes are ripe, so that a dry atmosphere can be maintained without injury to the roots. Ripe Grapes which are hanging on the Vines will be kept longer in good condition if the roof is shaded with a double thickness of fish-netting, or a little weak linewash syringed over will answer the same purpose. E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

PEAS.—One great object at which to aim in growing Peas is the prolongation of their season as much as possible, and by the selection of suitable varieties their period can be considerably lengthened. Of course, the weather is a consideration at all times and in all localities. Still much can be done by choosing seed with robust constitution, securing a good position, and giving close attention to cultural requirements. Here we never sow Peas later than the first week of June. In some exposed places even this date might be considered too late, while in others a sowing might be made later still with good results. I would advise a good sowing of *Ne Plus Ultra* to be made now on a piece of ground that was well manured and deeply dug early in spring. *Ne Plus Ultra* is a variety we could ill spare, but the height of its haulm must be considered, and stakes put in sufficiently strong to give it due support during autumn gales. Sutton's Late Queen is also an excellent late Pea, for besides having a robust constitution it produces heavy crops, and is of fine flavour late in the season. In my opinion this Pea will yet rank as one of our best late varieties.

TOMATOES.—Where plants of these have been prepared to be grown on a wall between fruit trees they should now be planted out. If properly hardened off they will soon take to their new quarters. Have the ground deeply and well broken up, and while doing so thoroughly mix with the soil a little artificial manure. Make holes with the spade 18 inches apart, sufficiently deep to hold the ball of roots when turned out of the pot. Keep the mass of roots as intact as possible, removing only the crocks. When the plants have been placed in position, draw the soil round the roots and make it firm. Give a good soaking of water, and cover all over with spent Mushroom bed manure to prevent evaporation. Instead of nailing the plants to the wall, push a straight stake beside each plant into the ground, and fix the top part to a nail in the wall. Tie the plants to the stake when they require it, and rub off all side shoots as they appear. J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

THE FRUIT GARDEN.

GRAPE WHITE LADY DOWNE'S.

MY experience of this Grape is that it is a poor variety in every way. Not only are the bunches irregular in shape, but they are small and the berries set indifferently, so much so that the bunches are most unsightly. The berries are a dingy greenish yellow colour and quite unattractive; they also soon become covered with dirty russet specks, which are most detrimental to their appearance. The flavour is harsh, not at all equal to either of its parents, Lady Downe's Seedling and the Alexandrian Muscat. I do not know a garden in which this Grape is grown. It was to be found at one time in the Liverpool district. E. MOLYNEUX.

TWO VALUABLE LATE APPLES.

SMART'S PRINCE ARTHUR.

ONE of the best late-keeping culinary varieties. The flesh is very firm, juicy, of excellent quality, and the fruit is of handsome appearance. The tree



APPLES SMART'S PRINCE ARTHUR AND WINTER PEACH (IN FRONT). (Half natural size.)

will not last long in flower. A drop of Floral Gum placed in the centre of the flower prevents the petals falling. Royal Botanic Gardens, Kew. A. OSBORN.

ORCHIDS.

DECIDUOUS CALANTHES AND THEIR HYBRIDS that were repotted in the spring are now growing and rooting freely. These plants must now have plenty of heat, and the best rooted examples will require copious supplies of water. When the plants have become thoroughly re-established, and numerous young shoots appear on the surface of the soil, place a top-dressing of yellow turfy loam lightly over them; they will soon find their way into the fresh soil, which will be very beneficial to them. During hot summer weather damp well between the pots several times a day. Keep the atmosphere well charged with moisture, and if their foliage can be got within a foot of the roof glass the better it is for them, as a good light is indispensable to their well doing, but strong direct sunshine should be avoided. In the *Cattleya* house such

PLEIONES as *P. maculata*, *P. lagenaria*, *P. wallichiana*, &c., are in full growth, and will need liberal supplies of water at the roots to induce the swelling up of the new pseudo-bulbs. These *Pleiones*, or Indian *Crocuses* as they are sometimes called, will enjoy a clear bright light so long as the sun does not scorch the foliage; if grown in too much shade the tips of the leaves decay prematurely. Our plants are well syringed every day to prevent red spider obtaining a footing on the under side of the leaves.

The *Aerides*, *Vandas*, *Saccolabiums*, *Sarcanthus*, *Angraecums*, &c., that are in the hottest division are now growing and rooting freely. These aerial roots when in growth are very soft and are easily injured, turning black

near to the top ventilators. When in full growth it will require plenty of water at the root. This distinct species has now passed its flowering season, and may be repotted if necessary. Owing to the flower-spikes being pendulous, and to the small number of roots the plants make, shallow pans are more suitable than either pots or baskets. Ample drainages should be afforded, the compost consisting of fibrous peat, sphagnum moss, and some broken crocks mixed with these to keep it porous. It is advisable to pot the plants with considerable firmness, as the pseudo-bulbs retain their plumpness longer while at rest than they do when the materials are loose. For two or three weeks after repotting keep the compost just moist on the surface, but then the supply should be gradually increased. *O. citrosimum* is certainly a beautiful species, and well-grown plants are always admired when in bloom. W. H. WHITE.

Burford Gardens, Dorking.

FRUIT GARDEN.

LATE VINES.—As soon as the Vines in late houses have passed the flowering stage they must be stopped and the shoots tied down and regulated. It is essential that late Grapes should have a free circulation of air, and the rods should be sufficiently far from the glass to allow air to pass freely about the foliage. Remove all surplus bunches, retaining only sufficient of the best to furnish the crop. The number of bunches must be determined by the health and vigour of the Vines. It is of great importance that late Vines should not be overcropped to such an extent as to prejudice the bunches being well finished. It is well known that a good finish is necessary in order to keep the bunches in good condition over a long season. Moreover, it must be remembered that late Grapes have to hang on

is a good grower, making a fine orchard standard, and bears a good crop of fruit, especially in Kent and the southern counties. The fruit will keep in good condition until the end of June, retaining its firmness as long as that well-known variety Easter Pippin, which is more widely known under the name of French Crab.

WINTER PEACH.

A very handsome late-keeping variety of first-class quality either for dessert or culinary purposes. The flesh is white, tender, and very juicy, with a very pleasant acidity. The fruit somewhat resembles Calville Blanche in texture, but is much handsomer (the tree is also much hardier than Calville Blanche). It is a very compact grower, with very distinct foliage, makes a good pyramid, and succeeds well on a stiff loam. Like Smart's Prince Arthur, the fruit will keep in first-class condition until June, retaining its briskness until the last.

APPLE BEAUTY OF STOKE.

WITH me this Apple keeps without any trouble until the first week in May. The tree is of free growth and bears well. The fruit is large, of conical shape, and a uniform russet brown colour. As a late culinary Apple it deserves a place with Bramley's Seedling. E. M.

APPLE VICAR OF BEIGHTON.

THIS Apple is not sufficiently known. For the first week in May it is quite the best dessert variety I know. The flesh is firm, of excellent flavour, and the medium-sized fruit is a bright crimson mottled with yellow, somewhat in the way of a full-sized King of the Pippins. For its extra keeping qualities and flavour it deserves a place in small gardens more than many better known varieties. E. M.

THE CALVILLE APPLES IN SOUTH HANTS.

THESE Apples may succeed with Mr. Wythes, but here in our cold heavy soil they are an utter failure. I tried several of them—Rouge Precoce and Maline especially—fifteen years since, and have not yet succeeded in obtaining a crop from them. The trees are much too tender for this district, ten miles from the Solent. They give a big crop of canker, which is not what they were planted for. I never recommend this type of Apple to any but those who have a spare wall to devote to them and wish for extra highly coloured fruit of a soft texture of flesh.

South Hants.

E. M.

LEGAL POINTS.

ADULTERATION OF SEEDS (N. W.).—You are quite right. It is a criminal offence to adulterate or kill seeds with intent to defraud.

TREE ROOTS (B.).—If a tree grows near the confines of the land of two parties, so that the roots extend into the soil of each, the tree belongs to the owner of the land in which the tree was first sown or planted.

AGRICULTURAL HOLDINGS (Tenant).—In the case of an agricultural tenancy from year to year, a year's notice expiring with the year of the tenancy is required instead of the half year's notice necessary in the case of an ordinary tenancy.

SHOEING HORSES (Horse Owner).—A farrier must exercise proper care and skill in carrying on his business. If the operation is performed in a bad and bungling manner, or if, having the requisite skill the farrier fails to use it, he is liable for any mischief which may result.

HIGHWAYS (Nemo).—The saying "Once a highway always a highway" applies to all public

rights of way. When a way has once been dedicated to the use of the public, the public rights cannot be lost or extinguished except by means of a special Act of Parliament or a Justice's order made in pursuance of the Highway Acts. The Justices may make an order to stop up or divert a highway.

REMOVAL OF ROSE BUSHES, SHRUBS, BOX BORDERS, &c. (Anxious).—In the absence of a special agreement an ordinary tenant is not entitled to remove Rose bushes, shrubs, Box borders, &c., which he has planted. In law such things become a part of the freehold immediately they are planted, and cannot be removed without the landlord's consent. This rule does not, however, apply to nurserymen or gardeners.

OVERHANGING TREES (F. W.).—Overhanging trees are a private nuisance, and the overhanging branches which project over the boundary may be cut off. You must not, however, except in a case of emergency, go on to your neighbour's land for the purpose of removing the branches without first giving him reasonable notice of your intention. If the branches occasion damage you can recover the amount in an action at law.

WINDFALLS (Essex).—Windfalls of sound timber trees belong to the landlord, but windfalls of trees which are not timber, and all decayed timber trees, belong to the tenant. In law the term "timber" means such trees only as are fit to be used in building and repairing houses. Oak, Ash, and Elm are regarded as timber everywhere, but the custom of the country varies as to other trees. In some places Horse Chestnuts, Birch, Lime, Beech, and Walnut trees are regarded as timber.

POISONOUS TREES (A Country Widow).—Your neighbour had no right to permit his Yew trees to overhang your meadow, and you are entitled to recover from him the value of your cow which has been poisoned by browsing on the leaves and branches of the trees. You had better consult your solicitor at once, and refer the legal gentleman to the case of *Crowhurst v. the Burial Board of the Parish of Amersham*, tried in 1878 by the late Chief Baron Kelly, and reported in the Law Reports 4 Exchequer Division. The legal maxim is "Sic utere tuo ut alienum non laedas" (Make use of your own property in such a manner as not to injure that of another).

LAND TAX (York).—Land tax is payable upon all freehold and leasehold property in respect of which the tax has not been redeemed. Each parish is liable to provide a fixed proportion or quota of the tax. The tax is assessed upon the annual value of each property in the parish. Consequently if a property increases in value it will have to bear an increased proportion of the amount of the tax payable by the parish in which it is situated. The tax must not be more than one shilling nor less than one penny in the pound, but the assessment of the various parishes may be adjusted for the purpose of providing the respective proportions of the tax which they are liable to contribute.

TENANT'S FIXTURES—REMOVAL OF GREENHOUSE (J.).—A tenant who is not a market gardener cannot remove a conservatory or greenhouse erected by him during his tenancy which has been actually fastened to or let into the freehold. A conservatory erected on a brick foundation fixed to or communicating with rooms in a dwelling-house by windows and doors cannot be removed. The same observation applies to a greenhouse built in a garden and constructed of wooden frames fixed with mortar to foundation walls of brickwork, also to a verandah, the lower part of which is attached to posts fixed in the ground. Special provisions have been made in regard to greenhouses erected by market gardeners. See the Market Gardeners' Compensation Act, 1895, by virtue of which a tenant is entitled to remove every fixture or building fixed or erected by him upon his holding for the

purposes of his trade or business, subject to making good all damage occasioned by such removal and to giving the landlord one month's previous notice in writing of his intention to remove such fixture or building. The landlord may elect to purchase the same at a fair value to an incoming tenant. Any difference to be settled by arbitration.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

DESTROYING ANTS ON LAWN (J. P.).—I should recommend you to roll back the turf from the lawn just above the nests, open them somewhat with a small spade, and then thoroughly soak them with boiling water, or pour in and then thoroughly mix with the nest some pearlash mixed with water until it is about as thick as paint.—G. S. S.

DISEASED HOLLYHOCKS (B. B.).—Your Hollyhocks are attacked by the Hollyhock rust (*Puccinia malvacearum*), a pest which a few years ago seemed as if it would exterminate this plant. I should pick off such leaves as are badly attacked and burn them, then spray the undersides of the remainder with Bordeaux mixture. When the leaves fall in the autumn collect and burn them. Do not sow the seeds of an infected plant.—G. S. S.

ACETYLENE GAS REFUSE (Sludge).—The sludge from an acetylene gas generator has much the same properties as slaked lime, and if not used too strong, and on soils which require an addition of lime, I have no doubt it would be useful. Many cultivators will have nothing to say to it, saying that its properties are uncertain, but I should certainly, in the case of your croquet lawn, not use it too strong. Allow the dressing to remain on the lawn for a fortnight before sowing any grass seeds.—G. S. S.

NARCISSUS POETICUS (K. Caniothen).—There are not wanting signs of disease in more than one of the bulbs you send, or rather in the growth, and it is but the beginning of the end. You tell us nothing about the soil or its general character, drainage, or the like, and we can only suggest a probable cause. Excessive drought or the opposite extreme would account for failure in part, and the crowded state of the bulbs—those sent are really only about one-half the usual size—would result in extreme weakness. Your remedy is lifting quite by mid-June, and replant in a month in fresh soil, deeply dug and well manured, the manure to be inserted at 9 inches deep, and the thinly-arranged bulbs at about half the depth. In the event of perfectly healthy bulbs of this Narcissus drying is not recommended, but the suddenness of the failure in your case and our examination of the bulbs and growth bring us to one conclusion only. Break the bulbs up and arrange them 3 inches asunder.

VIRGINIAN STOCK (*W. J. L.*).—The flower you sent is Virginian Stock. You may sow the seed at once, and again in a fortnight's time for a succession. The plants will come into flower in a few weeks from the time of sowing at this season of the year. It is very easily grown, and thrives well in ordinary garden soil. It is very pretty as an edging. It is only an early summer flower, however. If you keep the plants well watered they will flower all the longer. The Sweet Peas ordinarily grow 4 feet or 5 feet high, and undespecially liberal treatment even higher.

MAGGOTS (*Don*).—The maggots you find in the soil in your pots are the grubs of a small fly probably much like those which you enclose, but somewhat larger. I do not think those you sent in the box could be the parents of the grubs in the tube. I cannot say whether the grubs feed on the manure and leaf-mould in the soil or on the roots of the plants, but I expect on the former. In order to kill them you might try watering copiously with lime water or a strong solution of nitrate of soda, but it is very difficult to kill insects in the soil with any insecticides as they become so weakened by passing through it. Kill as many of the flies as you can.—G. S. S.

EARLY SUMMER FLOWERS (*Perplexed*).—Throughout May the Darwin and Cottage Tulips are very fine. Wallflowers are good early in the month. German Irises, of course, are indispensable. Bluebells and Narcissus poeticus recurvus flower in May. Violas, if put out the end of April, would be bright in May, and especially in June. You would find these invaluable. Pyrethrums, Liliun croceum, L. Hansonii, L. candidum, L. pyrenaicum, L. Martagon, and others, Aquilegias, Geum coccineum, Pæonies, Azaleas, Rhododendrons, Cytisus, early Sweet Peas, Pinks, Aubrietia Arabis, Iberis, Alyssum, ornamental flowering shrubs, e.g., Pyrus and Prunus, Amelanchier, Spiræas, Trollius, Lily of the Valley, Tiarella cordifolia (Foam Flower), Crown Imperials, and early Phlox are a few of the most important May and June-flowering plants.

GOOSEBERRY LEAVES DISEASED (*J. A. L.*).—The leaves of your Gooseberries are attacked by the Gooseberry leaf cluster cup fungus (*Puccinia pringsheimiana*), better known, perhaps, as *Æcidium grossulariæ*. You had better pick off and burn all the infested leaves. This fungus, like some others, is found in two distinct forms growing on two quite different plants. In this case the other form grows on one of the many species of Carex or Sedge. If these plants are destroyed your Gooseberry leaves will not be attacked another year. From what you say I expect that your bushes last year were infested by the Gooseberry leaf mildew (*Microspheria grossulariæ*). As this fungus only grows on the surface of the leaves and does not penetrate into the tissues, the only injury it does to the plant is by blocking up the breathing pores of the leaves. If your bushes are again attacked, try spraying with the following mixture: Dissolve 1 oz. of sulphide of potassium (liver of sulphur) in a quart of hot water; then make it up to 2½ gallons with cold water. Spray as soon as any signs of the fungus appear.—G. S. S.

HOYA CULTURE (*L. E. Hall*).—The enclosed leaves show that your Hoya is in a sorry plight, but, unfortunately, the cause cannot be determined by the inspection of a leaf alone. Though it may be "the beginning of the end," there is undoubtedly some cause for the illness from which the plant is suffering. Perhaps the drainage may be at fault, and consequently the soil is somewhat waterlogged, for the Hoyas, being naturally epiphytes, are very impatient of close, stagnant soil around the roots. Presumably your plant is in a pot, though on this point you say nothing. In such a case we should advise you to turn it out of the pot and shake all the old soil from the roots, removing at the same time any dead portions. When this is done the probability

is that you will find very few roots left, and, if this is so, the plant may be put in a pot much smaller than it was in before. A mixture of loam, peat, and silver sand in equal proportions, with a sprinkling of small nodules of charcoal, will encourage the action of rooting. Into this the plant must be potted firmly, secured to a stake or in some other way that it does not sway about, and then stood in that part of the greenhouse least exposed to direct draughts. It must also be thoroughly shaded from the sun. Enough water to keep the soil fairly moist is necessary, and it will be very beneficial to bedew the stems and foliage over two or three times a day with a syringe, as the humidity thus set up will prevent too great a strain upon the few healthy roots the plant may possess. When potting the plant it is very necessary that the pot be clean and effectually drained. It is probable that by constant attention in this way your plant will in time recover in health, but, of course, after so long a period the rate of progress is sure to be slow.

PHILADELPHUS NOT FLOWERING (*J. H. W. T.*).—Without an inspection of the plant, the reason of your Philadelphus behaving in the way it has done is difficult to say, as a good healthy plant, if in a sunny spot (and this is an important matter), should flower profusely. We do not advise cutting it down entirely, but as soon as you feel sure there are no flower-buds to develop, all the weak and exhausted wood may be cut out, thus allowing a greater amount of light and air to the younger and more vigorous shoots on which the future display of flowers will depend. We note your complaint that there is a great dearth of young growths, but the removal of some of the old wood may do a good deal to counterbalance this. If the situation is at all dry a good soaking occasionally during the summer will be beneficial, but liquid manure should be applied sparingly, and then in a much diluted state, for as you say the soil is good, artificial stimulants are but little needed.

PLANTS FOR VASES, &c., IN HOUSE (*M. L.*).—It is decidedly late to sow annuals that are required to flower this season, but the following, if sown at once in the frame, might suit your purpose, and give sufficient flowers during the latter part of the summer to warrant their use for indoor decoration: *Alonsoa Warscewiczii*, *Browallia elata*, *Celosia pyramidalis*, *Gomphrena globosa*, *Nemesia strumosa* Suttonii, *Rhodanthe Manglesii*, and *Ten Week Stock*. These will be best if sown in pans or pots, and pricked off into the pots in which they are to flower. The number of plants will depend upon the size of the pots that can be used. Other subjects which can be recommended for flowering in comparatively small pots must be obtained from a nurseryman, as there is not time to strike cuttings now and grow them into flowering size this season: *Achimenes*, *Streptocarpus*, *Gloxinias*, *Saintpaulia*, *Fuchsias*, *Lantanas*, *Lobelia tenuior*, and *Begonias* of different sorts, some of the tuberous ones, for instance, and other kinds, such as *Dregei*, *Carrieri*, *Ascotensis*, with some of the forms of *B. semperflorens*.

LILIUM CANDIDUM DISEASED (*J. A. C.*).—I am sorry to tell you that your *Lilium candidum* plants are attacked by the Lily disease, a very destructive fungus belonging to the genus *Sclerotinia*; it is one of those fungi which pass through two or more different forms before completing the cycle of their existence. That in which it is now attacking your Lilies is known as the *Botrytis* form, and it used to be classified under that name before the other form was recognised as the same fungus. A little later on small black masses known as *sclerotia* are formed in the tissues of the plant and in the adjacent soil, which, under favourable conditions, produce the *Peziza* form, which develops spores which again infect the plants, by germinating on the stems, &c., the fine threads of the mycelium or spawn making their way into the tissues of the plant. From this it will be seen that no fungicides are of any use

except to kill the spores on the plants before they germinate. It has been found useful to take up the bulbs and dust sulphur freely between the scales as a preventive against an attack the next season, but it is very questionable if this would be of any avail if circumstances were favourable to the fungus the next season. The only certain way of getting rid of this fungus is the heroic one of taking up and burning all the diseased plants, and not planting others which are liable to be attacked by this fungus for three years. Cutting off the diseased part immediately the fungus is noticed and spraying the plant afterwards with Bordeaux mixture might be of some service in the case of a mild attack.—G. S. S.

CHEMICAL MANURE FOR SWEET PEAS (*W. S. W.*).—With regard to the Sweet Peas, these do well in any good soil. If it is poor, plenty of decayed stable manure should be dug into it in the winter. Of chemical manures there are several which may be used when the plants are growing. Clay's Fertilizer is one of the best, this being sprinkled on the ground and well watered in occasionally.

COOL HOUSE ORCHIDS FLOWERING IN SUMMER (*E. R. Baines*).—Few cool house Orchids actually flower in summer, but the many forms of *Odontoglossum* will provide flowers in quantity from February to June, and even later, and where a fair quantity is cultivated there are not many days in the year when there are no flowers in the *Odontoglossum* house. Among the best are *O. crispum*, *O. Pescatorei*, *O. luteo-purpureum*, *O. Halli*, and *O. cirrhosum*. Some of the *Oncidiums* are very showy, such as *Oncidium marshallianum*, *O. prætextum*, *O. serratum*, *O. undulatum*, and *O. macranthum*, which flower generally during May, June, and July. *Cymbidium lowianum* generally opens if grown in the cool house in April, and will last nearly three months in flower. *Masdevallia harryana* and *M. Veitchii* are very decorative during May and June when well grown. *Epidendrum vitellinum majus* is a good early summer-flowering Orchid, and lasts a long time in flower. For the autumn, *Oncidium varicosum* Rogersii is one of the best and showiest of the cool Orchids. *Cypripedium insigne* and its varieties are easily grown. They flower during November and December, and there are now so many fine forms that they make a collection in themselves, and are well worthy of the extended cultivation now being given them. *Cymbidium traceyanum* also does well in this house, and flowers during October and November.

PLANTS FOR CARPET BEDDING (*Alfred Clark*).—A large selection of plants may be made for this purpose. Much depends upon the design that is to be carried out and the size of the beds. For colour the *Altenantheras* are useful. *Amœna* is the best red. *Parenchioides* also colours well, and of this there is the variety *aurea*, which in a sunny position colours a bright yellow. *Amabilis* is a dark variety. *Antennaria tomentosa* makes a nice white edging. *Cerastium tomentosum* is taller, with white foliage. *Mesembryanthemum cordifolium variegatum* is creamy white. *Echeveria secunda glauca* is much used for edging, for the silvery grey shade is distinct. For centre single plants *Echeveria metallica* is a good plant. *Pyrethrum aureum*, if kept pinched, makes a good yellow for lines. *Lobelia pumilum compactum* is a good dwarf light blue. *Sedum glaucum* is a greyish compact plant. *Cerastium arvense* is a good green. *Sempervivum tabuleforme* is a good plant. There are several other good *Sempervivums*. The Mossy Saxifrages are also useful. Carpet bedding requires some attention to keep the designs true; pinching, pegging, and regulating must be attended to. The beds are best when made up on raised ground, and the soil must not be over rich. Poor soil will keep the plants within bounds, and the foliage will also colour better where fully exposed to the sun. All of the succulents will do well without water, but the *Lobelia* and other soft plants must have moisture.

NAMES OF PLANTS.—C. E. F.—1, White Beam Tree (*Pyrus Aria*); 2, Wayfaring Tree (*Viburnum Lantana*).—F. B. A.—*Narcissus biflorus*.—Veld.—1, *Chrysanthemum leucanthemum*; 2, *Spergularia rubra*; 3, *Spergularia arvensis*; 4, *Anthriscus vulgaris*; 5, *Saxifraga granulata* fl.-pl.; 6, *Anemone sylvestris*; 7, *Hesperis matronalis*; 8, *Veronica gentianoides*.—*Flower from Italy*.—Probably *Dianthus sylvestris*, but too withered to determine accurately. —J. A. B.—1, *Hippocrepis comosa*; 2, *Phlox lilacina*; 3, *Erinus alpinus*; 4, *Anthyllis montana*; 5, *Dryas octopetala*; 6, *Saxifraga Wallacei*; 7, *S. trifurcata*; 8, *Alyssum montanum*; 9, *Arenaria purpurascens*; 10, *Saxifraga punctata*; 11, *Hieracium Pilosella*.—F. P.—1, *Pteris tremula*; 2, common *Polypodium* (*Polypodium vulgare*); 3, *Anthropodium cirrhatum*; 4, *Hedysarum coronarium*; 5, 6, and 7, please send when in flower. —F. F. Pompe.—1, *Asplenium lucidum*; 2, *Doodia caudata*; 3, *Athyrium filix-femina*; 4, *Pleopeltis phymatodes*; 5, *Centaurea montana alba*. —A. B. E.—*Spiraea arguta*. —J. T. Hadwen.—*Ornithogalum nutans*. —F. A., *Liverpool*.—*Epidendrum alatum*, a Guatemalan species. —A. E. S.—1, *Euphorbia species*; 2, *E. Cyparissias*; 3, *Lathyrus montanus*. —A. S.—All forms of *Odontoglossum luteo-purpureum*. We should not call any of them good, No. 4 being the best of them. —Thomas Smith.—1, *Saxifraga Wallacei*; 2, *Myosotis alpestris*; 3, *Saxifraga hypnoides*; 4, *S. Geum*; 5, *S. sponhemica*; 6, *S. trifurcata*. —T. H. A. H.—*Orchis maculata* var. *alba*.

ERRATUM.—*Pæony Blanche de Chateau Futu*.—In the last "Riviera Notes" (page 301) this reads as *Pæony Blanche de Chateau Frater*, which is incorrect.

SOCIETIES.

THE TEMPLE SHOW.

THROUGH pressure on our space last week we were unfortunately compelled to hold over the following notes from our report of the Temple Show.

FRUIT AND VEGETABLES.

Mr. Robert Stephenson, Burwell, Cambs, also put up good Asparagus. This was not quite so large as some, but looked more useful.

Mr. A. J. Harwood, St. Peter's Street, Cambridge, put up four bundles of Asparagus.

Sir Alex. Henderson, Bart., M.P., Buscot Park, Faringdon, made a splendid exhibit of fruit and vegetables. In fruit, Grapes Black Hamburgh and Foster's Seedling were well finished; Melons Buscot Park Hero, British Queen, and Hero of Lockinge were good; Nectarines Lord Napier, Early Rivers', and Elruge; Peaches Grosse Mignonne, and Hale's Early; Cherries Black Tartarian and Governor Wood were fine; Strawberry Royal Sovereign, and Fig Brown Turkey were all well shown. In vegetables Early Giant Pea, French Beans Plentiful, Tender and True, and Reliance, Potato May Queen, Cauliflower Magnum Bonum, and Turnip Snowball were good. The background of Red Currant Tomatoes grown in pots was very effective.

Mr. C. Ritchings, Guernsey, put up fourteen varieties of Tomatoes, Vineller's Prize, Challenger, Hipper I., and Sutton's A1 were among the best.

Messrs. Carter and Co., Holborn, put up good Cabbage, Cauliflower, Marrows, Beans, Turnips, &c., but no names were on them.

The Hon. A. H. T. de Montmorency, Dublin, showed four dishes of well-ripened Potatoes Royal Kidney, Sir John Llewelyn, Snowdrop, and The Scout (this an Irish-raised variety).

From Lady Warwick College, Studley Castle, came a good collection of vegetables, consisting of good examples of Cauliflower Defiance, Tomato Holmes' Supreme, Peas Early Giant, and others, Beetroot, Turnip, Red Milan, Marrows, &c.

Mr. S. Mortimer, Farnham, made a good show of Cucumbers and Tomatoes. Among the former Delicacy was well shown, the fruit on the plants showing a wonderful crop, and the cut samples were very even and good. The stock of this Cucumber has been secured by Messrs. Sutton and Sons, and will be distributed in the spring of 1906.

Messrs. T. Rivers and Son, Sawbridgeworth, exhibited a fine collection of fruit trees in pots, carrying good crops of ripe fruit. Cardinal and Early Rivers' Nectarines were especially fine. Early Rivers' and May Duke Cherries, and a remarkably fine tree thirty-six years old of Guigne d'Annonay loaded with fruit were

conspicuous features of the exhibit. Peach Peregrine, a fine early variety, gained a first-class certificate.

S. Heilbut, Esq., The Lodge, Holyport (gardener, Mr. Camp), exhibited some well-grown fruit trees in pots. The Nectarines were loaded with ripe fruits; Cherries were also very good. Melons in pots (Triumph and Pride of Stourbridge), Strawberries in pots, a Pine carrying a good fruit, Grapes (white and black), and Figs were all excellently shown.

MISCELLANEOUS.

Messrs. Jones and Sons, Shrewsbury, exhibited Sweet Peas in variety, all the best sorts being included. They were most attractively displayed. Messrs. Jones and Sons also showed hardy flowers.

Mr. Robert Sydenham, Tenby Street, Birmingham, exhibited a splendid collection of Sweet Peas, boldly arranged, and comprising many varieties of beautiful colouring. Among them we might mention the new pink Gladys Unwin, Janet Scott, King Edward VII., Rose Sydenham, Orange Countess, Celestial, and many other better-known varieties. They made a most attractive exhibit, and were much admired.

The following additions to the official list of awards are notified: Silver-gilt Flora medal to Mr. R. Irwin Lynch, for Gerberas, and silver Flora medal to Messrs. Stanley and Co., for Orchids.

Messrs. James Veitch and Sons, Limited, write to say that the 50-guinea Veitchian Cup awarded at the Temple Show is not a gold one, as stated in the official list of awards.

NEW PLANTS.

ORCHIDS.

Zygopetalum Ballii.—This is a remarkably handsome natural hybrid, and it has already received an award of merit. The flower is large, the sepals and petals being heavily marked with red-purple upon a greenish white ground; the latter colour shows only as a broad margin. The lip is pure white, marked with red-purple at the tip. Shown by E. Ashworth, Esq., Harefield Hall, Wilmslow, Cheshire (gardener, Mr. H. Holbrook). First-class certificate.

Odontoglossum anabile Ixion.—This is a hybrid between harryo-crispum and crispum, and a remarkably handsome flower. It is large, measuring from tip to tip of petals almost or quite 3 inches. The ground colour is pale lilac, but it is heavily blotched with brick-red throughout except at the ends of the sepals and petals. The lip is broad and long, the lower half white, the upper half blotched with crimson-purple. It was shown by M. Ch. Vuysteke, Lochristi, Ghent. First-class certificate.

Cattleya citrina maxima.—A larger and altogether more beautiful form than the type. The colour is a rich golden-yellow throughout, rather deeper in the lip and throat. It is a most beautiful flower. Shown by M. le Marquis de Wavrin, Chateau de Ronsele, Ghent. First-class certificate.

Cattleya Mendelii Cicero.—This is an unusually large flower. The petals are broad and drooping, almost touching the lip. They are a beautiful bluish colour; the sepals are rather lighter. The lip is very handsome; the lower part, which is heavily frilled, is rich purple; this colour runs into the throat between masses of yellow on either side. The outside of that part of the lip overlapping the column is white. Shown by Messrs. Hugh Low and Co., Enfield. Award of merit.

Odontoglossum loochistensey Ardarrach variety.—A brightly-coloured, attractive flower of excellent form. The ground colour is white, deepening to pale yellow at the margins. Petals and sepals are rather heavily blotched with light red-brown. The lip is long and fairly wide; it has a white margin and large blotch of red-brown near the base. Shown by R. Brooman-White, Esq., Ardarrach, Garelochhead, N.B. Award of merit.

Cattleya schilleriana Westfield variety.—A large and handsome form of *C. schilleriana*. The size of the flower is remarkable. The sepals and petals are brown, with dark crimson spots. The lip is rich bright rose, and forms a striking contrast to the sombre-coloured sepals and petals. From E. Wellesley, Esq., Westfield, Woking (gardener, Mr. Hopkins). Award of merit.

Odontoglossum lawrenceanum Adonis.—The parents of this hybrid were triumphans and Rolfeæ. It is a striking and distinctly marked flower. Sepals and petals are chocolate coloured, with bright yellow tips and the same colour showing through between the heavy chocolate markings. In the centre of the flower the ground colour is white. The well-formed lip is white at the base, with a bar of chocolate above, and the upper part is dotted with a similar shade of colour. From M. Ch. Vuysteke. Award of merit.

FRUITS.

Peach Peregrine.—This is a beautiful second early Peach. It was raised and exhibited by Messrs. T. Rivers and Son, Sawbridgeworth, Herts. Previously it had received an award of merit, and at the Temple Show it was given a first-class certificate. It is a seedling from the Spenser Nectarine, slightly earlier than Crispin Galande, and in all probability will take the place of the latter, as it is

altogether a better Peach. It has all the qualities of a first-rate fruit, being of excellent flavour, juicy, of good appearance, and a free and reliable cropper. It is fairly large, pale crimson, striped and flecked with a deeper shade. A really beautiful Peach.

Cucumber Delicacy.—There can be little doubt as to the value of this new Cucumber, for it has received within a few weeks an award of merit and a first-class certificate from the Royal Horticultural Society and a certificate from the Royal Botanic Society. It received the Royal Horticultural Society's first-class certificate at the Temple Show. It was raised and exhibited by Mr. S. Mortimer, Rowledge, Farnham, Surrey. It is the result of a cross between Matchless and Aristocrat, the latter of which also received an award of merit recently. Delicacy is a short fruit, very dark green, and carries a splendid bloom.

FLORAL COMMITTEE.

The following each received an award of merit:

Rose David Harum (H.T.).—This will in all probability prove a useful addition to this class. The colour is rosy pink, tinged with a paler hue internally, and the reverse externally. From Messrs. Paul and Sons, Old Nurseries, Cheshunt.

Rose Lady Gay.—We have not seen a variety so pleasing in colour or so abundant in its flowering as this. All the plants shown were pillars of blossoms 7 feet high or so, the clusters depending from stems 18 inches long, the latter the flowering shoots of the season. We can only refer to the colour as a pure rose-pink, the score or more of flowers constituting each truss rendering the plant quite a feature. It comes from America, and is, without doubt, the most sumptuous thing in pillar or climbing Roses we have yet seen. Novelty and merit go hand in hand in this case. From Messrs. William Paul and Son, Waltham Cross.

Rose Philadelphia Rambler.—This is a true Rambler, and may best be described as a much-improved Crispin Rambler. The effect of the wondrous array of rosy crimson flowers is excellent. From Messrs. Hobbies, Limited, Dereham.

Begonia Mme. Granby.—A charming double variety, with primrose-yellow-coloured flowers, the petals much undulated. From Messrs. T. S. Ware, Limited, Feltham.

Begonia Mme. Adeline Patti.—A very fine double-flowered variety; colour deep salmon. It is a Camellia or flat-petalled variety. From Messrs. Blackmore and Langdon, Bath.

Edraianthus Pumilio.—A Campanula-like plant, having pale blue, erect bells closely set on a minute cushion-like tuft. It is not new, though somewhat rare. From Messrs. William Cutbush and Son, Highgate.

Eremurus Elwesii albus.—A white-flowered variety of Elwes's form of *E. robustus*, differing only in the colour of the blossoms. From Mr. G. Reuthe, Keston, Kent.

Pelargonium the Hon. Mrs. Boyle (Ivy-leaved).—A freely flowered variety of this class, in which the compact and rather closely arranged flowers are rosy pink. From Mr. Charles Turner, Slough.

Pelargonium M. Rosaleur.—A showy variety with flowers of a deep salmon-rose colour, shaded with carmine. From Mr. W. J. Godfrey, Exmouth.

Phlox canadensis Perry's variety.—This is a very decided improvement on the old well-known form, and grown entirely in the open. The colouring was more intense; the dominant tone is lilac-blue. It is obviously a plant for free massing in the border. Height, 18 inches. It is also valuable as a spring-flowering plant. From Mr. Amos Perry, Winchmore Hill.

Primula Arendi (*obconica* × *megacæfolia*).—An obvious hybrid, as above stated, with much of *P. obconica* character in it. There are not wanting evidences in either leaf or blossom of the influence of the species named, the leafage greatly resembling that of *megacæfolia*, and the flowers, for the most part, taking after the other parent. The eye of the flower is encompassed by a ring of colour frequently seen in *P. megacæfolia*. The plant is good from the decorative standpoint, and possesses the same freedom of flowering as *P. obconica*. From Herr George Arends, Ronsdorf, Germany.

Rhododendron Smithi aureum.—A hardy kind, with exquisitely-toned yellow flowers. The colour is unusual, and the varietal name does not accurately describe it. A mixture of buff and primrose might probably give an idea of it. It is very beautiful. From Messrs. William Cutbush and Sons, Highgate.

Azalea indica Julius Kæhrs.—One of the largest-flowered semi-double varieties we have seen. Indeed, the blossoms are nearly single-flowered, with indications of doubling. The colour is rosy carmine with crimson, and the exceptional size of the flowers and free flowering of the plant render it a very useful addition to this section. From Messrs. Sander and Co., St. Albans.

Sarracenia flava gigantea.—This is all the name implies, and in addition to its greater stature as compared with the type the interior of the lid of the pitcher is heavily veined with reddish scarlet. It is a striking plant, the fully developed pitchers being not less than 2½ feet high. From A. J. A. Bruce, Chorlton.

Verbena The King.—The merit in this case consists of much increased size of flower individually, and this necessitating a larger head of flowers, a very showy, well-flowered, and effective plant is the result. We regard it as good both for market and general decoration. From Messrs. William Cutbush and Sons, Highgate.

THE BRITISH GARDENERS' ASSOCIATION.

A PUBLIC meeting was held in the Memorial Hall, Faringdon Street, E.C., on Thursday, the 1st inst., to receive the report of the Committee of Selection of the British Gardeners' Association. Dr. M. T. Masters presided, and was supported on the platform by Mr. W. Watson and

Mr. George Gordon. There was an attendance of about forty.

In addressing the meeting, Dr. Masters said the present position of the association was a matter for congratulation. It was only in its infancy, and must advance gradually. Although their progress had been slow, it had been sure. He had heard words of disapproval from members of the trade, but from country gentlemen he had heard no single objection. It was abundantly clear that an association was needed; they needed better pay. They could not better their positions by individual effort, but by acting together. They wished to benefit themselves, but to injure no one. Dr. Masters then called upon the secretary to read the report.

Mr. George Gordon, in proposing the adoption of the report, thought they had good reason to be satisfied with the progress of the association. A firm foundation had been laid in spite of the fact that some eighteen months ago certain critics declared it to be impossible. Had the movement been at all revolutionary, as had often been urged against it, they might be sure that they would not have had Dr. Masters in the chair. His presence was a proof of the praiseworthy objects of the association. Much would have to be done before they could convince everyone that their intentions were fair and good. It was most important that they should have more funds, so as to bring the matter home to gardeners. That the members had complete confidence in the Committee of Selection was shown by their re-electing all but one to serve on the council.

Mr. W. Dallimore, who seconded the adoption of the report, said he would have liked to have seen more young gardeners become members. Every young gardener ought to join the association, whether his employer was in sympathy with it or not. It was not difficult for young men to obtain situations. He thought employers would benefit by the association as much as gardeners would, for it would sift the worthless from the worthy. It was a pity that more nursery hands did not join. When the association got a sound footing it would be able to do much more than at present.

Mr. E. F. Hawes endorsed Mr. Gordon's commendation of the work of the Committee of Selection. Employers would benefit by the association, as naturally the best men would come forward first. He thought the association's power for good would largely increase.

Mr. Drost thought the association had made good progress considering the opposition it had to encounter. In time gardeners would be very thankful to the promoters of the association. As a nurseryman he thought the association would be of help to them, for it was a difficult matter to find good men. Testimonials from employers were often valuable. It would be a boon to be able to go to the association for a reference.

Mr. J. Weathers said there was a good deal of opposition to the association throughout the country. A good deal of harm had been caused by the impression that it was to be managed on the lines of a trade union. This impression still continued, although the committee had done all they could to eradicate it.

The report, from which we make the following extracts, was then adopted unanimously.

REPORT OF THE COMMITTEE OF SELECTION.

After a year's operations the association has developed slowly but steadily in the direction generally desired. Twenty-eight public meetings have been held and addressed by delegates from the committee in horticultural centres throughout England and Wales. The result of these meetings has been in many cases the formation of a branch of the association, and further development in this direction only awaits the stimulus of the executive council. The number of members enrolled up to May 25 was 632. It is interesting to note that by far the majority of the members at present are employed in private gardens, while only very few of the many thousands engaged in commercial gardening have as yet joined. This is no doubt largely due to the difficulty of making the association and its aims known to these men, and also, it is to be feared, to the opposition some nurserymen have shown to the association, an opposition which has gone so far as to forbid their employés to take any part in the movement. It is to be regretted that not a few head gardeners have displayed the same kind of antagonism to the association, evidently from a belief that its operations would interfere with them in the control and management of their charges.

The expenses incurred by the committee in the work of promotion have been almost covered by donations received for the purpose. In addition to the meetings held the committee have distributed a large number of pamphlets, application forms, and rules, but they have found poor results arise from the distribution of printed matter alone. The firmly-rooted belief of the majority of gardeners that association and co-operation can do nothing to improve their condition or raise the status of their calling cannot easily be shaken. It is evident that only when this association has demonstrated its capacity for usefulness will the great body of professional gardeners actively support it. To do this effectively funds are urgently needed. The committee, therefore, appeal for the liberal support of those who are in a position to afford it. If £1,000 could only be obtained it would enable the executive council to commence operations on a scale that would command respect. An office in London and a paid secretary must be provided before any satisfactory advance can be looked for. Up to the present the donations promised amount to £81. Is it possible that among the wealthy patrons of horticulture there is not one who is sufficiently in sympathy with its workers and the effort now being made to better their condition to induce him to advance the amount required to start us? Four

thousand members would mean £1,000 in subscriptions and registration fees, and surely these would be forthcoming in a short time if only the association could make a strong effort from a position of security. The support accorded to the movement since its initiation by the horticultural Press has been most gratifying. This alone should satisfy doubters as to the necessity for an association and the genuineness of the present effort. Many employers, among them the Right Hon. J. Chamberlain and Lord Windsor, have expressed their sympathy with the movement, and their belief in its power for good. The want of faith among the gardeners themselves is a most deplorable element, but it has to be overcome, and there is every reason to believe that it will disappear as the objects of the association become better known. The election of an executive council was conducted in a manner calculated to give general satisfaction, a circular letter and list of candidates being posted to every member of the association. The list included thirteen private gardeners, so that members preferring an executive composed of private gardeners only could have their choice. It is significant that no one selected private gardeners exclusively. Only 362 voting papers were returned.

The following were elected members of the executive council: T. H. Candler, foreman, Putney Park, Putney; W. E. Close, superintendent of parks, Fulham; C. H. Curtis (*Gardeners' Magazine*), 68, Whitestile Road, Brentford; G. Gordon (*Gardeners' Magazine*), Priory Road, Kew; J. Lawson, head gardener, Horticultural College, Swanley; K. Hooper Pearson (*Gardeners' Chronicle*), 40, Brocklebank Road, Epsom; W. Taylor, head gardener, Tewkesbury Lodge, Forest Hill; W. Watson, curator, Royal Gardens, Kew; J. Weathers, horticultural instructor, Pymmes Park, Edmonton; T. Winter, superintendent of parks, Marylebone; and W. Dallimore, foreman, Royal Gardens, Kew.

Mr. J. H. Dick proposed a vote of thanks to the Committee of Selection, testifying to the hard work which they had got through often at considerable personal inconvenience. This resolution was carried unanimously.

Mr. W. Watson proposed a vote of thanks to the chairman for his hearty support of the association and for his presence that evening. None was better qualified than he to act as their chairman. He was disappointed that the meeting was so poorly attended.

Mr. George Gordon seconded the proposition, which was carried with acclamation.

In reply, Dr. Masters said he hoped that he might be present next year, and that they would have a larger meeting.

Mr. Jordan said that the best thanks of the meeting were due to Mr. W. Watson for his hard work in connexion with the association, which, said Mr. Jordan, would not have been in its present position had Mr. Watson not worked so hard for it. Mr. Watson, however, said that praise was due, not to himself, but to the Committee of Selection.

HORTICULTURAL SOCIETIES' SCHEDULES.

SHEFFIELD CHRYSANTHEMUM SOCIETY.—The annual show will be held in the Corn Exchange on Friday and Saturday, November 10 and 11. The secretary is Mr. M. H. Willford, 35, Carfield Avenue, Meersbrook, Sheffield. An excellent schedule has been arranged. A first prize of £10 is offered for the best eight vases of Japanese Chrysanthemums in eight varieties.

St. Ives.—The thirtieth annual summer show of this society will be held on Thursday, July 27, in the grounds adjoining the Needingworth Road, kindly lent by H. Goodman, Esq. The secretary is Mr. G. H. Cannon, The Broadway, St. Ives.

Chipping Norton and North Oxon.—The second annual exhibition will take place on Thursday, July 13, at Ivydene, Chipping Norton, by kind permission of Mrs. Saunders. Lady Algernon Gordon-Lennox will open the show and distribute the prizes. A challenge cup value £20 is offered with the first prize for forty-eight distinct rose blooms (open), and in the amateur class a cup value £10 10s. is offered with the first prize for twelve Tea or Noisette blooms. The hon. secretary is Mr. H. W. G. Morris, 18, High Street, Chipping Norton.

THE SALE OF POISONOUS COMPOUNDS.

MR. ATLWYN FELLOWES, M.P., received on the 24th ult., at the Board of Agriculture, a deputation from agriculturists and manufacturers and traders interested in the sale and use of sheep dips and other poisonous compounds. Colonel Long, M.P., said that the deputation wished to alter the law under the Pharmacy Act by which the sale of poisonous compounds was in the hands of chemists alone, thus forming a sort of monopoly. Mr. T. G. Dobbs, secretary of the Royal Poisons Society, read a letter from the secretary of the Royal Agricultural Society, hoping that other persons than pharmaceutical chemists would have the sale of poisonous substances in common use among farmers and horticulturists. The Royal Horticultural Society and about fifty chambers of agriculture also supported the views of the deputation. Mr. R. H. Smith, secretary of the Ironmongers' Federated Association, and Mr. Isaac Connell, secretary of the Scottish Chamber of Agriculture, spoke on behalf of the aims of the deputation.

Mr. G. H. Richards, patentee and manufacturer of XL All Nicotine Insecticide, spoke in the interest of the horticultural trade, and stated in 1892 he first commenced to make experiments with nicotine for insecticide purposes, and after proving that it was far in advance of anything previously used for the purpose, he secured the

services of one of the largest chemical manufacturers in London for the manufacture of nicotine. When supplies were ready and nicotine was available as a commercial article, he at once introduced XL All Insecticides to the horticultural trade, who confirmed his opinion that they were greatly in advance of anything previously used for destroying insects on fruit trees and plants, and the trade unanimously decided to catalogue these insecticides and recommend them to their customers with every confidence. After they had been in circulation through nurserymen, seedsmen, and florists for some years, chemists became alive to the fact that they were successful articles, and proceeded to urge the Pharmaceutical Society to take out prosecutions against horticultural traders for selling them on the plea of public safety.

He also pointed out that there was not any greater danger to the public through these articles being sold by horticultural traders than if sold by chemists, and that it would be a great injustice to now take away the sale of these articles from horticultural traders who have been to the expense of introducing them to the gardening public.

Mr. J. Lytle, jun., manufacturer of sheep dips, weed killers, and other poisonous compounds used in agriculture and horticulture, took the same view, and pointed out to the president that it was practically impossible in many parts, for instance, the Highlands of Scotland, and, in fact, Scotland generally, to distribute sheep dips through chemists, as in some instances no chemist was to be found within very many miles of farmers' homesteads, and also that his firm did a large trade in England in weed killer, and that it had always been distributed through nurserymen, seedsmen, florists, and ironmongers with perfect safety.

The traders of the deputation impressed upon the president that these articles were always sent out in special packages properly and boldly labelled "Poison," and that every direction and necessary caution was printed on the packages to ensure careful handling by the public, and that there was no breaking of bulk for sale; in other words, the packages were handed over by the nurseryman or ironmonger to the consumer just as received from the manufacturer.

Mr. Fellowes, in reply, said that the Board of Agriculture were of opinion that there should be no monopoly in the sale of poisonous preparations for use by agriculturists or horticulturists, such as sheep dips, weed killers, insecticides, and other things which fell within the Pharmacy Act. It was wrong that things important to agriculture like sheep dips should be restricted in their sale to chemists, and there was no reason why other people should not sell them under proper safeguards. Some regulations were necessary, and the persons who wished to sell them should have a license from the local authority, and they should be sold in the same condition in which they were received from the manufacturer, bottles and packages to be unopened and to have some indication of their contents. There was a Bill in preparation by the Privy Council on the lines of the recommendation of Sir Herbert Maxwell's committee, and he would do what he could to push it forward. —*Horticultural Advertiser.*

Henry Eckford Testimonial.—The contributions to this fund up to Saturday, the 3rd inst., totalled 775s. shillings.

The Scottish Rosarian Society.—At a recent meeting of the directors of the West of Scotland Rosarian Society it was agreed to put forward the date of the show by a week, so that the show will now be held on July 13 in the Victoria Hall, Helensburgh.

The Kew Guild.—The sixth annual dinner of this institution was held at the Holborn Restaurant on the 29th ult. Dr. A. Henry, M.A., F.L.S., presided, and was supported by Dr. D. H. Scott, F.R.S., Messrs. Davidon Jackson, N. E. Brown, Hart (from Trinidad), W. Nock (from Ceylon), W. Goldring, and others. Mr. W. Watson (curator of the Royal Gardens, Kew), Mr. W. J. Bean (assistant curator), were also present. The attendance of past and present members of Kew numbered 141, and among the former were Messrs. E. H. Wilson (who recently returned from China and Thibet), F. S. Sillitoe (from Khartoum), L. Gentil (curator of Brussels Botanic Gardens), J. F. Wilke (curator Botanic Gardens, Rotterdam), N. Gill (home from India), T. W. Brown (formerly in West Africa and Morocco), besides many members of the guild whose labours do not take them so far afield. In proposing the toast of "The Kew Guild," Dr. Henry said that although he had no official connexion with the guild, he had a great affection for Kew and all that pertained to it, and, therefore, might be said to be closely associated with it. He referred to the valuable pioneer work done by Kew men in all parts of the world, and mentioned individually some of those who were present after long journeys abroad, paying an especial tribute to Mr. E. H. Wilson. Mr. Wilson, he said, might be taken as the type of a Kew man, a man who always does his work thoroughly. Dr. Henry referred to the help of the guild and its journal in keeping men in touch with each other throughout long years and in widely-separated lands, and concluded by wishing it continued prosperity and every success. Mr. W. Watson, president of the guild, replied. The toast of "The Chairman" was given by Mr. W. Nock, and was heartily received. A most enjoyable evening was spent; old friends foregathered after a lapse of years, and many acquaintances were renewed. Four lady gardeners who had worked at Kew were present. At the general meeting held immediately before the dinner, the action of the committee in voting £10 to the widow of Mr. Wade, who formerly worked at Kew and was accidentally killed some time ago, was heartily endorsed.

* * * The Yearly Subscription to THE GARDEN is: *Inland*, 6s. 6d.; *Foreign*, 8s. 9d.



From the Painting by Miss Beatrice Parsons

SEDGWICK PARK, HORSHAM.
THE WATER GARDEN.

THE GARDEN

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JUNE 17, 1905.

A TRYING SPRING

PERHAPS the spring, above all other seasons, is the most anxious time of the year for gardeners and fruit growers, and now that we have reached the summer month of June, the moment is opportune for discussing the climatic conditions which have prevailed during the past few months, and the effects they will be likely to have on the returns for the whole year.

As a matter of course, we expect certain regulation weather during the months of January, February, March, April, and May, and if each of these months turned out just what we expected them to be, there would perhaps be no cause for complaint; but there is the fickleness of the British climate to be considered, and this spring again we have had forcible illustrations of how fickle it can be. According to an old adage, "As the days lengthen the cold strengthens," but this is not always the case, and though January was not actually mild, it was by no means severe. Are we suffering from any effects of the climatic conditions of January now? Possibly, and in more ways than one. In some districts water is none too plentiful, and springs and pools are empty, though the summer is yet young. The slight rainfall in the winter and the lack of snow in January are doubtless responsible for this. When we are blessed with an abundance of rain and heavy snowfalls in winter, crops can pass safely through a dry summer without suffering so much from the effects of it. Again, how much the present plague of insect pests amongst fruit and other crops is due to the mildness of January is an open question, but we know that in the absence of sharp spells of frost many of these foes, which might otherwise succumb to the climate, safely survive the winter, and live to cause great devastation through the following season.

February, according to every proverb about the weather, should be a month of rain, but this year it was nothing of the kind, and, instead of dykes being filled, there was less water in them at the end than at the beginning. In February, it is true, we got foretastes of spring in the shape of glorious weather, and many people are now congratulating themselves that they took advantage

of the dry state of the ground to get in seeds of Onions, Parsnips, Peas, Beans, &c. Everyone, however, was not in a position to do this, and the result is that in some cases crops were got in very early, and in others very late. We shall see presently which give the best results. March this year was not entirely true to character, and it seemed as though there was a reversion of the order, for a good deal of the rain which we expected in February fell in the latter month, and gardening operations could only be pushed on slowly.

In April, instead of sunshine and soft rains, we had biting winds and storms, which were bad for the early fruit blossom. April, as a rule, is the month in which, for various reasons, a great deal of sowing and planting has to be done, but this year the state of the ground in many places made this impossible, and consequently crops are by no means forward.

With the advent of May the skies cleared, and we were given a sharp taste of the easterly winds that would have been more seasonable in March. Through the combined efforts of wind and sun the surface of the ground dried and baked and cracked, and vegetation refused to grow. The fruit trees—the Cherries, Pears, and Plums—were in full blossom, but the conditions were not to their liking, and day by day one could see the blight spreading more rapidly, as if intent on completing the work of destruction. It was surprising to many how well the Plums and Pears seemed to set in spite of the wind, and hopes did not sink till those severe frosts came on the 22nd and 23rd ult. The latter made all the difference to prospects, and, though the fruit on high ground was not cut so badly, still the sharp frost changed what promised to be a fair average crop into a small one. It was pitiable to see the breadths of early Potatoes blackened and cut down and the early Strawberry crop ruined. The latter fruits are advancing towards ripeness, and there are prospects of plenty; but we must not overlook the fact that the blackening of the centres of those early flowers means loss, because they, in the ordinary course of events, come in first and produce the finest fruits, which fetch the most money.

If ever rain was needed badly it was after the frosts referred to, in order that damaged

crops might get another start, but it refused to come, and, excepting local thunder showers, May was dry from beginning to end. No rain, drying winds, cold nights, and hot sunshine—what could be worse for garden produce at that time of the year?—and the effects of it can be clearly seen. In the meantime hordes of aphids and hungry caterpillars have swooped down on the fruit trees, and in many places their condition is pitiful. At the beginning of June the Apples were in jeopardy, for the young fruit trusses were sticky masses of living aphids, and the shoots on the Plums and Cherries curled and twisted through being infested with another kind of the same family. How welcome is the steady, continuous rain which at last has come only those who have gardens, orchards, and field crops can know. "Better late than never" is certainly a consoling proverb in some instances, but it remains to be seen if it will apply in the present circumstances; we are doubtful whether the much-needed rain of last week did not arrive too late.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, W.C.

BLUE FLAG TULIPS.

Mrs. Methuen sends from Haslemere very curious flowers of the blue Flag Tulip, with bracts on the stem of the same colour as the segments. All Tulips are liable to such malformation as in the specimens sent, and this is probably due to a check received by the bulb last year when forming its new flower or to some peculiarity of the soil.

A GATHERING OF WILD FLOWERS.

Mr. G. S. Jordan, The Gardens, Bodorgan, Anglesey, sends a delightful boxful of wild flowers of unusual size, with the following interesting note: "I am sending you a few blooms of the wild Hyacinth (*Scilla nutans*). The woods near to my bothy are a picture just now, so

that I was tempted (although a common wild-flowering Scilla) to gather you a few of the finest blooms. Within fifty yards of where I am now writing the ground is blue with them, and I think with the wild *Polystichum* Ferns dotted here and there among them nothing can be more beautiful." The spikes of spotted *Orchis* (*O. maculata*) were exceptional for strength and rich colouring of the flowers.

THE DOUBLE WISTARIA (*W. SINENSIS* FL.-PL.).

Mr. Anthony Waterer sends from Knap Hill Nursery, Woking, several clusters of the rare double *Wistaria*. When it flowers so profusely as this it is a shrub of much charm, and the colouring is very beautiful, a slightly darker shade than the single form. Mr. Waterer mentions that the double *Wistaria* "looks well mixed up with the Laburnum."

THE ANEMONE-FLOWERED COLUMBINE.

"Flora Gardener," Clay-next-Sea, Norfolk, sends what is described as "the Anemone-flowered Columbine." The flower is semi-double, but loses nothing in refinement through this, and the colour is a warm shade of pink. A pretty garden Columbine.

MARECHAL NIEL ROSES.

We have received a boxful of beautiful *Marechal Niel* Roses from Mr. W. Richardson, gardener to Mr. T. P. Price, Marks Hall, Coggeshall, Essex. The flowers were gathered from a west wall.

TULIP ROYAL VISIT.

Mr. W. Baylor Hartland, Ard Cairn Nurseries, Cork, sends a flower of this new Cottage Tulip. It is a flower of brilliant colouring (produced on a stalk 24 inches high), rich vermilion, the outer petals toning off at the edges to shades of yellow. It is closely allied, but far superior, to *John Ruskin*. Mr. Hartland writes that this and *Golconda* are two of the finest Tulips at Ard Cairn.

LILAC-SCENTED HONEYSUCKLE.

From Daisy Hill Nursery, Newry, Ireland, Mr. T. Smith sends a flowering shoot of *Lonicera syringantha*, a graceful plant bearing frail, small bunches of lilac-pink flowers. It has quite a pronounced Lilac scent. Mr. Smith also sends a handsome gathering of *Globe Flowers* (*Trollius*) in some richly-coloured varieties. We can quite understand their making a good display in the garden.

AQUILEGIA.

Miss Whitehead, Deighton Grove, York, sends a few blossoms of *Aquilegia* that show well the beautiful and varied colourings that may now be had among these most valuable hardy flowers. Miss Whitehead writes that she has a large bed in full beauty just now. They are all from the seed of a buff and pink *Aquilegia* grown there. They were sown two years ago as soon as ripe in pans, and when large enough to handle were pricked out in their present quarters in the kitchen garden in a bed facing west.

SOME BEAUTIFUL BROOMS.

We have received a very beautiful lot of *Cytisus* from Mr. T. Smith, Daisy Hill Nursery, Newry, of great variety and rich colouring. *C. andreasus* is always much admired, but the varieties sent from Newry are great improvements upon it. *Andreasus* Smith's variety is more vigorous, of stiff, upright growth, and bears larger more richly-coloured flowers. Butterfly, bright yellow and orange-brown; Daisy Hill, pale buff with purple blotch; Newry Seedling, somewhat similar, but with larger and brighter flowers; Dragon Fly, a particularly handsome sort, rich yellow and ruby; May Fly, butter yellow and rich red-brown; Firefly, light yellow and ruby, a

very effective association; the typical *andreasus*, *C. multiflorus albus*, smothered with its white blossom; and *C. sessilifolius*, a very pretty sort bearing small yellow flowers in quantity, were others sent by Mr. Smith. They were representative of all that is best and richest among the Brooms, and well exemplified the great variety of the *Cytisus* and their value in the garden at this time of year. Mr. Smith also sent *Lonicera villosa*, a very beautiful addition to our hardy Honeysuckles. It produces terminal trusses of bright yellow flowers in May and June. The leaves are quite rough to the touch, owing to their being covered with white hairs.

PHILADELPHUS MEXICANUS.

From South Devon Mr. T. H. Archer-Hind writes: "Some years ago I wrote to THE GARDEN to correct an error in reference to *Philadelphus mexicanus*. I sent a spray then, and I send one now, as it appears to be little known, though an old introduction. It differs much both in shape and perfume from any other species. Unfortunately, it is rather tender, and even in Devon requires the protection of a wall."

[The white, cup-shaped flowers are of thick, almost wax-like texture, and very fragrant.—Ed.]

SWEET PEAS FROM SAFFRON WALDEN.

"E. G." writes: "I am sending you photographs of Sweet Peas, which perhaps will be interesting to your readers, together with flowers. They are grown by Mr. Englemann at Saffron Walden. At present they are a fine sight, the plants being 9 feet to 10 feet high, and covered with bloom. They are grown in houses each 150 feet by 28 feet in dimension. The first flowers were cut about the middle of April, and the plants will continue to bloom until those outside are well in. All the best varieties are planted, such as *Dorothy Eckford*, *Miss Willmott*, *Mars*, *King Edward VII.*, *Lady G. Hamilton*, *Gladys Unwin* (a lovely shade of pink), *Navy Blue*, *Captain of the Blues*, and *Scarlet Gem*."

[A very interesting contribution to our table. The flowers were exceptionally fine and the photographs of much interest, but, unfortunately, not suitable for reproduction.—Ed.]

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

June 20.—Royal Horticultural Society's Meeting.

June 21.—York Gala (three days).

June 26.—Isle of Wight Rose Show.

June 27.—Oxford Commemoration Rose Show.

June 28.—Farnham Rose Show; Southampton (two days); Richmond (Surrey) Horticultural Show.

June 29.—Canterbury, Reading, and Walton-on-Thames Rose Shows; Colchester Flower Show.

July 1.—Warminster and Windsor Rose Shows.

July 3.—Maidstone Rose Show.

July 4.—Royal Horticultural Society's Meeting; National Sweet Pea Society's Show; Sutton Rose Show.

July 5.—Hanley (two days), Tunbridge Wells, Brockham, Chippenham, Croydon, Ealing, and Hereford Rose Shows.

July 6.—National Rose Society's Show, Botanic Gardens, Regent's Park; Sidcup Flower Show.

July 11.—Wolverhampton Floral Fête (three days); Harrow and Saltlake Rose Shows.

July 12.—Bath, Formby, Stevenage, and Thornton Heath Rose Shows.

A coloured plate of *Rhododendron fulgens* will be given with THE GARDEN next week.

Presentation to Mr. Leonard Sutton.—The esteem in which the Reading and District Gardeners' Association hold their president, Mr. Leonard Sutton, was shown on

the 26th ult., when an illuminated address and silver centre-piece were presented to him by the members. The ceremony took place in the University College Gardens in the presence of some 150 members. The wording of the address was as follows: "We, the undersigned members of the Reading and District Gardeners' Mutual Improvement Association venture to ask you to do us the honour to accept the accompanying silver centre-piece as a slight and very sincere token of our great respect and appreciation of your kind services as president since January, 1902. Under your direction and guidance the association has steadily progressed as a power for good in all matters relating to horticulture. The deep interest you have taken in providing opportunities for increasing our knowledge and experience is so much appreciated that we hope it may be a real pleasure to you to receive this tangible expression of our feelings." Then followed the names of 200 subscribers. Mr. T. J. Powell of Park Place Gardens, Henley-on-Thames, expressed on behalf of the members of the association their indebtedness to Mr. Leonard Sutton for his invaluable help and encouragement. As president he had done all he possibly could to bring the association to a high state of efficiency. Mr. Stanton of Park Place Gardens, Mr. W. Barnes of Bearwood Gardens, and Mr. T. Neve (honorary secretary) also spoke, and eventually Mr. W. Townsend, Sandhurst Lodge Gardens, made the presentation. Mr. Leonard Sutton replied at some length, and assured the members of his appreciation of their kindness and his continued interest in the association. A most enjoyable time was spent in the University College Gardens, where the excellence of the vegetables grown under the superintendence of Mr. Foster was generally remarked.

A *Rhododendron* exhibition.—

Each year during the month of June one of the dells in the beautiful gardens of the Royal Botanic Society, Regent's Park, is transformed into a garden of *Rhododendrons*. At the present time the plants are in their full beauty, and are well worth going to see. Imagine some 2,000 plants in more than 100 different varieties, many of them a mass of blossom, others bristling with buds just ready to burst, all massed in large, grass-verged beds and borders on undulating ground, and intersected by paths so that one may become more closely acquainted with certain beauties not revealed at a distance, and some idea will be had of this *Rhododendron* dell. It is, in fact, a garden of flowers, a feast of colour, and at the present time the most sought after and most attractive spot in the Botanic Society's gardens. The *Rhododendrons* were grown and planted by Messrs. John Waterer and Sons, Limited, Bagshot, Surrey. A large and successful three days' flower show was held by the society in their gardens last week, and a report of it will be found on another page.

***Fendlera rupicola*.**—This is a very pretty and uncommon shrub belonging to the natural order Saxifragaceæ, and just now is flowering freely on a warm south wall. A position such as this and a sunny season seem to just suit its requirements, as may be readily understood by the conditions under which it flourishes in a state of Nature. This *Fendlera* is a native of the dry, arid regions of New Mexico and Arizona, and is said to grow on rocky places fully exposed to the sun. It is of twiggy growth, clothed with small leaves, while the flowers are white and about 1½ inches in diameter. They are composed of four spreading petals, widely separated from each other, thus giving a particularly starlike appearance to the flowers, which in general aspect suggest at a glance an unusually large-flowered form of one of the Australian *Leptospermums*, though they have really no affinity therewith. The "Dictionary of Gardening" gives the date of its introduction as 1888, but even now it is scarcely to be obtained from nurseries.—T.

Annual flowers.—The "One and All" garden books, issued at popular prices under the editorship of Edward Owen Greening, have a distinct character of their own. This pamphlet is the second of the penny handbooks. Mr. T. W. Sanders, the writer, is the president of the National Amateur Gardeners' Association. He has taken pains to state in simple terms all the most important information on the culture of hardy and half-hardy annuals. The editor has fully illustrated the handbook with about thirty pictures of easily-grown plants, adding cultural directions to each illustration, a very useful plan.

Mesembryanthemum acinaciforme.—This fine Mesembryanthemum is now in flower at Kingswear, at the mouth of the Dart. The blossoms are of a deep rose tint, and are 4 inches across. An illustration of this plant in flower at Kingswear appeared in Vol. LXII., page 362. It does not flower so freely in the south-west as the yellow Hottentot Fig (*M. edule*), which is sometimes a sheet of blossom, but its flowers are much larger and far more striking. It produced no bloom in 1903 and 1904, but this year is, fortunately, again blossoming.—S. W. FITZHERBERT.

A new flowering Ash.—The flowering Ash known to all of us as *Fraxinus Ornus* (*Ornus europæus*) is an esteemed flowering tree, the blossoms appearing in great clusters in the days of early June. What may be called a new flowering Ash is the Chinese Ash (*Fraxinus Bungei*). This is a quite small-growing tree apparently, having shining green leaves and the fluffy, greenish white clusters of flowers that so embellish the *Ornus*. All the plants of it observed so far are of small size. They have flowered some weeks in advance of the old kind, and this character seems natural to it.—*The Florists' Exchange* (New York).

A good late Pea—Veitch's Autocrat.—I know of no better Pea for supplies during August, September, and October than this. I do not say that it never fails—as doubtless it does—but in such cases it is either the soil or culture that is at fault. I have seen other good varieties also fail for lack of nourishment, and it is most difficult to grow late Peas under such conditions. In this Middlesex garden the earlier Peas would be more suitable. Autocrat—indeed, other late, large-growing varieties—require more room than is often given, and those who have a poor soil to deal with and who fail with late Peas grown in the usual way should have trenches, which are prepared in the same way as for Celery. Seed sown in June will provide a September supply. Unlike some late Peas, this variety branches freely and may be termed a continuous cropper, having a good deal of the Ne Plus Ultra character. It resists mildew, and is one of the best in dry seasons. One advantage is that it continues to set its blossom till cut down by frost, and I have in the North gathered this variety well into November from sowings made late in June.—G. WYTHES.

Impatiens Holstii.—A short time since there was a note in THE GARDEN concerning this beautiful member of the Balsam family, then and now flowering at Kew. The writer of the note was unable to give any information regarding its origin or history, a matter on which I can furnish a few particulars. Seed of it was distributed by Messrs. Haage and Schmidt of Erfurt, and in their catalogue it is thus referred to: "Impatiens Holstii.—A new very handsome Balsam, discovered by Professor Dr. Engler, director of the Royal Botanical Garden at Berlin, while on his voyage in East Africa in 1902. It forms elegant bushes from 1½ feet to 2 feet in height, and resembles in habit, foliage, and shape of flowers the popular *Impatiens Sultanii*, but surpasses the latter by its quicker and more vigorous growth, and its larger and much brighter coloured flowers. . . . In a half-shady position the plants grow luxuriantly out of doors, and form

effective and unusually showy flower-beds by their great abundance of bloom." It is at least questionable if this Balsam would be of any great value for bedding in this country, but for the same purposes as *Impatiens Sultanii* there is no doubt that its bright vermilion-scarlet-coloured flowers will gain it many admirers. In THE GARDEN of the 27th ult. it is, I note, mentioned as having been exhibited at the Paris International Horticultural Show.—H. P.

A late Broccoli—Standwell.—Good vegetables are none too plentiful in early June, and any variety that helps out the supply is most valuable. We have given the above variety a trial. Grown by the side of Late Queen (the last named one of the most valuable late Broccoli grown), it promises to be even later, and will last till the Cauliflowers on a warm quarter turn in. I am aware that Broccoli varies greatly according to the season, and one season's trial is by no means sufficient to test its late-keeping properties. On the other hand, it should be borne in mind that these vegetables (the Brassicas especially) have such a thorough test in the splendid trial grounds near Reading before they are distributed that there is no fear of inferior quality. In our own case this year it was anything but suitable weather, heavy fogs doing more harm than cold, but this variety was one of the hardest. The plant has a distinct habit, with pointed, smooth leaves and nice sized heads, which are of excellent quality when cooked. For late use we plant in various positions, as at times this gives a longer cutting, and the weather does not affect all alike. When only small or medium-sized heads are required the latest supply is most valuable.—G. WYTHES.

Nectarine Cardinal.—This, the latest production in Nectarines of Messrs. Rivers, and yet the earliest of them all, was very fine a few days ago at Gunnersbury House. In one of the fruit houses were grouped some twenty-five to thirty trees in pots. It was, indeed, with regard to colour and production, a beautiful sight, and one could but wish for a picture that would show how admirably the Cardinal variety lent itself to this form of culture in the capable hands of such a grower as Mr. Hudson. Cardinal is with him quite a fortnight earlier than is Early Rivers. In other houses there were quite heavy crops of Cherries, both white and black, and of all varieties of Plums. Many of the trees fruiting were from six to ten years old, yet so productive.—A. D.

Onosma albo-roseum.—One of the few places in which this undoubtedly fine but difficult plant does really well is in the Royal Botanic Gardens, Edinburgh. It was growing on the wall of one of the sunken pits, and was flowering most profusely, its many tubular rosy white flowers looking remarkably beautiful on the pretty foliage. There were two or three plants, each more than 1½ feet across, dimensions difficult to secure with this *Onosma*, which with most people seems to grow hard and "rusty" about the stems, and eventually succumbs. In Edinburgh they seem to have succeeded in finding exactly the conditions which suit this ornamental rock plant, and those who wish to succeed with it may well try it under similar conditions, i.e., with the roots in a good body of soil, which can hardly get very dry, but with the plant itself trailing over the rocks.—S. ARNOTT, *Sunnymead, Maxwelltown, Dumfries*.

Lychnis diurna variegata.—Mr. John Forbes of Hawick received an award of merit for *Lychnis diurna variegata*, which he placed before the council of the Royal Caledonian Horticultural Society at their spring show held in Edinburgh the other day. Its chief beauty is in the pretty and constant variegation of its leaves, which are beautifully variegated with creamy yellow and green. Unlike some variegated plants, it does not lose much of its variegation when it comes into flower, but it will

be found advisable to keep the flowers pinched off, as they do not add to the beauty of the plant. This *Lychnis* was found by Professor Bayley Balfour of Edinburgh when botanising in Scotland, and it is used to advantage in the Edinburgh Royal Botanic Gardens, one small bed being filled with it. The writer has grown this plant for some time, and in his garden it has proved satisfactory. As may be expected, it is quite hardy, and can either be used as a border or a rockery plant.—S. ARNOTT, *Sunnymead, Maxwelltown, Dumfries*.

Bullfinch in the garden.—Having read in THE GARDEN of the 3rd inst. the letter signed "Townsend" on bullfinches, in justice to the birds I wish to say that having kept one I know for a certainty that grubs, small caterpillars, and other insects are their very favourite food. I do not wish to deny [their liking for buds of fruit trees, but I am sure that in many cases it is to search for grubs that the buds are destroyed.—C. H. FEILDEN, *Thorncliff, Bonchurch, Isle of Wight*.

An early Melon—Royal George. There are plenty of good Melons, and, as most fruit growers are aware, a few days or a week or two gained at this date, when there are fewer choice fruits at command, is a great point. My note refers to a Melon which I find is quite ten days or a fortnight in advance of others, and it is not a small, poor fruit, or a poor cropper, but just the reverse; indeed, in our own case we have three to four fruits on a plant, and these rather close together. Royal George was introduced by Messrs. Cutbush, Highgate, three seasons ago, and I may state it is a roundish fruit, scarlet flesh, and a splendid cropper. Seed sown late in January and grown under the usual conditions gave us ripe fruits the third week in May. I am aware Melons may be fruited in less time from now till September, but early in the year growth is not so rapid, and this must be taken into account. Another point with early Melons is their habit. Those with a close, compact growth are so much better for early forcing; indeed, for any purpose they are more readily managed. At the same time the free growers can be restricted at the root if forced at all hard. Last season I had three crops of Royal George in the same house, and an excellent lot of fruits each time.—GROWER.

Coleus Royal Robe.—I am sending you a photograph of a *Coleus Royal Robe* grown by my gardener. The plant is fourteen months old. Its extreme circumference is over 10 feet. In case you might like to reproduce it in THE GARDEN you will notice that I have not been able to get the whole plant on the plate. To do so I should have been obliged considerably to reduce the size of the plant, which would not convey an idea of its large size. I have two other *Coleus* as large, if not larger.—N. N. CAVENDISH, *Blacklands Hall, Cavendish, Suffolk*. [Unfortunately, the photograph was not suitable for reproduction.—ED.]

The wild Tulip.—I was much pleased to find this spring a large patch of wild Tulip flowering in the orchard, and, strange to say, though we have been four years in this place, I never before noticed its existence. I fancy that perhaps owing to the orchard grass having been kept cut, the bulbs had not matured sufficiently to produce blossoms. I believe *Tulipa sylvestris* to be somewhat rare and only found in few localities in the British Isles. The little delicate yellow flowers are charming and quite fragrant, and a decided acquisition to the wild garden.—A. DE L. L.

Saxifraga Dr. Ramsay.—This pretty Saxifrage, which received a first-class certificate from the council of the Royal Caledonian Horticultural Society, at their spring show in Edinburgh last week, is a valuable acquisition to a numerous and beautiful class of plants. Its parentage is *Saxifraga lantoscana superba*,

fertilised with the pollen of *S. macnabiana*, both beautiful Saxifrages well known to those acquainted with the genus. In habit it has a considerable share of that of *S. lantoscana*, a parent from which it derives the clear glistening white of the flowers, but these, again, are marked with the spots which are so conspicuous in *S. macnabiana*, but they are much fainter. The foliage is beautiful, and the spikes of flowers are handsome, and bear a number of blooms. *S. Dr. Ramsay* was raised by Mr. Robert Lindsay, Kaimies Lodge, Murrayfield, Edinburgh, and the stock was placed in the hands of Messrs. Cunningham, Fraser, and Co., Comely Bank Nurseries, Edinburgh, for distribution. It has proved a good grower, and is sure to be a popular Rockfoil when sufficiently known.—S. ARNOTT, *Sunnymead, Maxwelltown, Dumfries.*

The yellow-berried Cotoneaster.

The question of seed germination has more than once cropped up in the pages of *THE GARDEN*, and the behaviour of *Cotoneaster angustifolia*, which has somewhat surprised me, may also be of interest to other readers of *THE GARDEN*. This *Cotoneaster* will be remembered as that beautiful yellow-berried shrub which attracted so much attention last autumn, when, at one of the meetings of the Royal Horticultural Society, it was awarded a first-class certificate. Obtaining a few of the berries, I separated the seeds from the pulp by hand and sowed them in a pan of ordinary potting soil, placing them in a greenhouse where a temperature of 50° to 55° was maintained. To my surprise, in a fortnight the seed commenced to show signs of germination, and so rapidly did the young plants advance that, from seed sown on February 25, I was enabled to prick them off into small pots on the corresponding day in March, and they are now from 1 inch to 1½ inches in height, with from six to eight leaves each. This exceedingly rapid germination was doubtless largely owing to the seed being sown almost as soon as ripe, for seeds of other *Cotoneasters* sown on the same day which had been sent from China and the Himalayas—and had, consequently, spent some time in their paper packets—have not so far shown the least signs of germination. That the age of seed has everything to do with its powers of growing is well known, but I cannot recall such a prominent illustration of this.—T.

TREES AND SHRUBS.

KERRIA JAPONICA.

PRESUMABLY there is no record of the origin of the double form of *Kerria*, which, although it does not at the present time occupy a foremost position in the gardens of the wealthy, still retains its hold on the affections of cottagers and owners of small gardens generally. Frequently in this part of Surrey one comes across a big specimen which has probably given its annual display of blooms for fifty years or more. Once well established it seems to need no further care, and is able to hold its own with almost any kind of strong-growing climber. According to Loudon, the typical single-flowered form was introduced from Japan in 1804, and as he makes no mention of the double-flowered and variegated-leaved varieties, it is evident that they must have originated in English gardens. These single-flowered forms seem to be much neglected, but they are very pretty, and well worth growing.

Some fifteen years ago I planted a small piece of the type which I got from a cottage garden in a sunny, open, well-drained position. It has grown into a bush about

5 feet high and as much through, and is carrying thousands of its pretty little blossoms, which resemble the double form only in colour. In this condition the single *Kerria* is certainly one of the best spring-flowering shrubs we have, and in association with evergreens of any kind has a charming appearance. I have also the variegated form which seems scarce. Planted at the same time and growing under the same conditions, it has not grown more than 4 feet high. It is much more slender in growth than the type, and the blooms are about half the size. It is an elegant little shrub, and good for the front row in shrubberies or places where evergreen and deciduous trees and shrubs are massed.

Byfleet.

J. CORNHILL.

THE PYRUSES.

At the end of April and the greater part of May the various species and varieties of *Pyrus* are in full flower, but none can be compared with the *Malus* section, of which the common Crab Apple (*Pyrus Malus*) may be taken as an example. Their colours are white and various shades of pink and rose, but the wonderful diversity of colour must be seen to be appreciated, as from a description they seem to be much alike, but there is really a great difference between them. The following can be recommended as certain to give satisfaction:

Pyrus baccata (the Siberian Crab) forms with age a small tree about 20 feet in height and as much in diameter, and bears clusters of bright pink flowers about 1 inch across. The outsides of the buds are red, and when the flowers are half-opened the combination of colours is distinctly pleasing. The small, scarlet fruits are very brilliant in autumn and early winter, and are excellent for preserve-making. *P. baccata* var. *Bertini* resembles the type, except that the flowers are pure white.

P. coronaria var. *flore-pleno*.—This is a small, upright tree with nearly double flowers about 1½ inches across, and of a bright rose-pink colour. The flowers are on rather long stems, giving the trusses a rather loose appearance, but when well flowered the tree is distinctly handsome.

P. floribunda bears small pink flowers, changing to white with age in such profusion as to hide the branches, forming one of the handsomest large shrubs or small trees that can be grown. The variety *atrosanguinea* has deeper coloured flowers, and var. *flore-pleno* (*Malus Parkmanni*) has semi-double flowers of a reddish pink hue, but it is not of much decorative value in this country, though it is highly praised in America.

P. Schiedackeri is a stout-growing plant after the style of *P. floribunda*, with semi-double, reddish pink flowers borne in small trusses all over the branches. It is a comparatively new introduction, but is a decided acquisition to this class of plant. It is a garden hybrid, of which *P. floribunda* is one of the parents. *P. spectabilis* is one of those plants no garden should be without. It is a strong-growing small tree, with semi-double, rose-pink flowers about 1½ inches across, borne in dense clusters. It lasts a considerable time in bloom. The above will grow in almost any soil, but should have full exposure to the sun. They are propagated by budding them on stocks of the common Crab Apple.

Bagshot, Surrey.

J. CLARK.

CYTISUS PURPUREUS VAR. INCARNATUS.

THIS is a pretty light purple-coloured variety, producing short racemes, and these on the young plants under 2 feet high. It is well adapted for forcing gently into bloom in early spring, although its proper season out of doors is the month of May.

NOTES ON HARDY PLANTS.

BLUEBELLS AND FERNS.

ONE of the prettiest pictures in the Royal Gardens, Kew, in Bluebell time was made by a planting of Bluebells—in blue, pink, and white—in a large bed of Ferns. The pale green fronds of the Ferns showing among the mass of flower-spikes provided that quiet colouring without which the effect might have been unpleasant. Kew in Bluebell time is in one of her most delightful moods, and should be missed by none who live near.

THE JAPANESE MOONWORT.

(*SCHIZOCODON SOLDANELLOIDES*.)

ALTHOUGH introduced some thirteen or fourteen years ago, it is very doubtful if there are a dozen places in this country where it is well established. Requiring conditions of growth similar to those enjoyed by *Shortia galacifolia*, to which it makes an excellent companion, this native of Japanese mountains presents no insurmountable difficulties to the earnest cultivator. Well drained sandy loam and peat, in cool, moist, but not wet, shady positions, will provide the conditions most favourable to success. Also, it must be noted that, like *Shortia*, this rare and charming plant dislikes root disturbance. From tufts of shining evergreen leaves are produced in spring and early summer the bright rosy, elegantly fringed flowers, two to four on each stem. Deepest in the centre, the lovely rose colour gradually fades almost to white round the edge of the bell-shaped blossoms.—From the catalogue of hardy plants of the Incorporated Bees, Limited, Neston, Cheshire.

Neston, Cheshire.

E. HORTON.

PENTSTEMON BARBATUS TORREYII.

IN a recent number of *THE GARDEN* I wrote a short note on the above plant, and advocated planting it in a mass to produce the best effect, but on page 99 your correspondent "E. M." "regrets that there is so much of it in commerce, and so little of the true type—*barbatus*." Possibly that may be so, and it is a great pity that such is the case, but at the same time it does not alter the fact that the variety *Torreyii* is superior in every way. It is, unquestionably, one of our finest border plants, and all I claim for it. The variety is certainly not more easily cultivated than the type, and to procure the best results one must give the treatment I before advised, especially on cold, retentive soils. I do not for one moment wish to infer that there are not spurious forms in cultivation, but to anyone who contemplates growing *P. barbatus Torreyii*, and obtains the true form, I would advise annual propagation, and am fully convinced that they will not find the colour of one of our most pleasing plants an "unattractive washed-out red."

A. E. THATCHER.

PERENNIAL CANDYTUFTS.

ABOUT fifty large clumps of *Iberis garreuxiana*, which is certainly the finest and best of the family just now in bloom on either side of the broad central grass walk in the kitchen garden at Hackwood Park, Basingstoke, show how effective as a border plant the variety is. These clumps are each about 20 inches over, and carry a complete mass of pure snowy white flowers of excellent form and substance. *Iberis coraeifolia*, which is perhaps the next best to this, but is not so effective, when associated with such simple things as *Alyssum saxatile* (yellow Rock Cress) and its lemon-coloured variety, with dark, strong-growing *Aubrietias*, such as *Fire King*, *violacea*,

and Dr. Mules, and backed by good clumps of from nine to twelve bulbs of diverse coloured May Tulips, any hardy plant border in that month wears a brilliant aspect. In combination with Iberis, Aubrietia, and other hardy creeping plants many broad masses of the creeping Phloxes are just now very beautiful at Sherfield Manor, where they are used with good effect in many directions. A. D.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

WHY CLEMATISES FAIL.

SIR,—I am afraid that I cannot write with confidence on the behaviour of the Clematis in this garden, but probably my experience has been much the same as other people's. A writer in *Flora and Sylva* some time ago remarked that "while hundreds of fine varieties have been sent out, both in England and France, it is unusual to see a garden in which any good effect results, even if the plants have not died."

This is, indeed, a serious indictment to make, and yet how many gardeners would care to be called upon to disprove it? For my own part I am quite willing to accept and endorse the statement made, and my object in sending these notes is mainly to see how readers of THE GARDEN have fared with the Clematis as a garden flower, and to ask them to send any information they may possess as to its cultivation.

In this garden I have planted a great many Clematises, but only a few of them have succeeded. *Lilacina floribunda*, one of the most beautiful and vigorous of the light-coloured varieties, has been planted here three times, and, after growing and flowering well for a year or two, has eventually succumbed. There are many reasons, in my opinion, why the Clematis dies off suddenly without any warning, and here are some of them :

- (1) Badly grafted plants.
- (2) Grafting on unsuitable stocks.
- (3) Injury by frost, both in winter and when growth has begun in spring.
- (4) Watering with cold tap water during dry weather.
- (5) Clematis disease ; a disease which seems shrouded in mystery.

(1) In discussing the first point it must be remembered that the Clematis is grafted in heat, and very often the result is entirely unsatisfactory. Most rosarians know that a grafted Rose is seldom as satisfactory in the open ground as a budded one. My decided opinion, after seeing the grafting process carried on in a large Clematis nursery, and examining the grafted plants subsequently, is that very often the union is a bad one. Are Clematises best upon their own roots? I have never tried them, so cannot express an opinion.

(2) *The stock*. — That usually used is Clematis *Viticella*, which requires a calcareous soil. May we not infer that in soils wanting in lime the result of this grafting is against the plants? But then, are not *all* the sections of Clematis better for lime in the soil?

(3) I have known the plants severely injured by an early autumn frost. Spring frosts are, of course, frequently fatal.

(4) Watering with cold tap water is bad for all plants. I have killed a good many things by doing this, among them several Clematises. I make a note of this as a warning to beginners.

(5) Clematis disease. This is a very knotty question to discuss. No one appears to understand it, and I am quite certain that I do not. Neither has much been written on the matter, but M. Francisque Morel had an interesting article on the subject in the *Revue Horticole* a year or two ago, which is worth quoting here :

"Many suggestions, mostly guesses, have been put forward as to the causes at work, one of the commonest, and, to my mind, least grounded, being the attempt to trace connexion between the presence of tiny worms upon the roots with the sudden destruction of the whole or part of the branches. It is well, before hazarding such theories, to try to locate the disease and fix its nature and effects. In my opinion it will

but its author was plainly unaware that Clematis always turn black after death from whatever cause. This expression applies rather to the point first attacked, which is usually a narrow band, varying from a fraction to more than an inch wide, and generally just at the surface of the ground, though it may come a trifle higher or lower as the case may be. This diseased tissue is full of black dust, but whether the cause or the result of decay is not clear, while of the stem little remains save the main fibres, which break at a touch, while the entire growth dies suddenly from this point upwards. A fact, however, of importance is that, not only are the tissues *below* the point of attack perfectly sound, but any stems not themselves attacked are equally healthy, and that, as frequently happens, new growth starting from below, providing it escapes contagion, is as sound and vigorous as that of any healthy subject. Under these circumstances one cannot well attribute to the roots a



BLUEBELLS AND FERNS AT KEW.

prove to be of germ origin, for all the symptoms point to this. It is probably by slight wounds in the tender growths that the enemy makes its attack. After violent rains, during the damp heat of summer, and in low places where moist air remains stagnant, its ravages are most conspicuous ; on the other hand, few traces are found during dry weather, resulting either from heat or northerly winds, and it works little harm on breezy uplands, particularly if the soil is light and porous. Frequently, too, the disease comes as a sequel to the work of training and tying, especially when neglected plants have been disentangled and wounded. So much is this the case that many growers either leave the plants entirely alone, or follow their advance so closely as to allow of no such injury, and by these means escape loss. I have seen the phrase 'Black Death' often applied to this disease, which is explained by the blackening of affected plants,

disease showing only on the branches, and which, when the roots are good, is repaired so naturally by sound tissue. Anyone may test the matter by an examination of the roots, when it will be found that if a certain number of plants show worms, a good proportion, particularly of the younger plants, are quite free from them, and yet the results are the same in both cases, the only thing proved being that, as might well be expected, the plants whose roots are most beset with worms recover but slowly."

These remarks of M. Morel are of extreme interest, but as I have never come across the worms of which he speaks, I should like to enquire whether any reader of THE GARDEN can explain what is meant. Are they a species of eelworm visible to the naked eye? I have frequently noticed that the plants often collapse after a heavy rain following dry weather, and have puzzled over this more than once. One of the



ST BRIGID ANEMONES IN A SUFFOLK GARDEN.

greatest mistakes which is made is in planting the varieties of the lanuginosa, patens, and florida type upon arches and pergolas. They are absolutely useless in such positions, and no success in their cultivation will be attained unless a sheltered low wall is provided for them. Another mistaken idea is to plant these delicate hybrids on the front of a house, because not being of very vigorous growth they seldom cover more than half the space allotted to them. Clematis montana and other strong-growing species are the right plants for this purpose, whereas these less vigorous varieties prefer a low wall on which they can easily reach the top and hang over. The ideal position is a wall in front of which are some low-growing shrubs. These serve to shelter the Clematis roots from the hottest sun. I have proved beyond question that the plants thrive better with their roots in the shade and their tops in the sun. Only those varieties which flower on the summer shoots are of any use upon an arch, because they require to be cut down to the ground each year, whereas the varieties belonging to the three groups I have named flower from the old or ripened wood and necessarily require careful training and pruning. These latter start into growth very early, and seldom succeed away from a wall. A. R. GOODWIN.

The Elms, Kidderminster.

ST. BRIGID ANEMONES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The photograph I send shows a bed planted in August, the seed having been sown in June, 1904. The bed is 30 yards long by 5½ feet broad. The plants were planted in rows 3 inches apart and 2 inches between the plants. As the soil is very heavy a good deal of refuse from the potting sheds is dug in before planting. No manure is used. Great care is taken to select the seed from the largest and most brilliant flowers. The seed is sown in a cold frame, and only slightly covered, the lights being taken off as soon as the seedlings are up, and kept off until planting. We have tried lifting and drying the roots, also top-dressing

the beds after the foliage dies down, but the results are nothing compared with the fresh plantations made in August each year.

H. ANDREWS.

The Gardens, Earsham Hall, Bungay.

[With the photograph Mr. Andrews sent a splendid gathering of these flowers in many rich shades of colour.—ED.]

CUPRESSUS MACROCARPA AS A HEDGE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In THE GARDEN of the 13th ult. I saw a note about suitable trees for making a good hedge to a garden, so think the accompanying photograph and account of them may interest your readers. It represents a hedge of Cupressus macrocarpa—the Monterey Cypress—which was planted by my father about thirteen years ago. They were then quite small trees, and were planted 3 feet apart round the garden, a distance of 400 yards. The garden being almost at the top of a hill, in a very exposed position, not far from the sea, and the hedge being planted on a bank on top of a 4 feet 6 inch wall, it was at first blown down in a gale, so he had it supported by iron rails run through it horizontally, to which the small trees were tied, and the result now is a splendid thick fence quite 10 feet high, making a good shelter to the garden, and the dark green of the foliage forming an excellent background for flowers and flowering shrubs. The illustration shows a view of the hedge as seen from the road (there is a low Euonymus hedge planted outside it in case it should get thin at the bottom, which it has not done as yet except in one or two small places). It grew very quickly, attaining its present height in a very few years, at which height it is kept by careful clipping twice a year.

Torquay.

ANNE L. TOTTENHAM.

THE LILIES.

(Continued.)

LILium POMPONiUM (L.).—The Scarlet Pomponne. An old garden plant, closely allied to *L. chalcedonicum*, and remarkable for its dainty globular flowers of rich scarlet hue. The bulbs are conical and small, the stems slender, 3 feet high, not rooting from their bases, and deeply channelled throughout; the leaves numerous and very narrow. The flowers are eight to ten in a loose raceme, vermilion in colour, dotted with black on the inside low down, the petals recurving so as to form a perfect sphere 1 inch to 1½ inches in diameter; odour slightly pungent. The plant's habit is that of an attenuated pyramid. Common in cultivation. Flowers in July. A native of Lombardy.

Var. verum, a form from the Maritime Alps, grows 2 feet to 3 feet high, and bears scarlet flowers dotted with black, and white-edged leaves somewhat twisted, giving the plant a curious tasselled appearance. Common in cultivation. Flowers in July. One can treat this Lily similarly to the true Martagons, but it dislikes a close, heavy, or wet soil. The type grows better and with less care than the variety *verum*, although the latter is more plentiful in gardens. One must give it treatment bordering on the alpine, choosing well-drained slopes and warm soils of a gritty nature, and plant early. It may be grown well in the plant border in naturally dry and warm districts, but in the north, the Midlands, and the south it requires specially selected sites where it is surrounded by gross-seeding plants that would reduce

the moisture in the soil. Where *L. pomponium* fails owing to wet *L. chalcedonicum*, its near ally, is likely to thrive, and where *L. chalcedonicum* thrives *L. pomponium* will require the drier slopes of rockeries or other well-drained sites.

Pot culture is not to be recommended.

L. rubescens.—See *washingtonianum* var. *rubescens*.

L. speciosum (Thunb.).—The Showy Japan Lily. A very variable Lily, widely spread in Japan, but which of the many forms should be accepted as the true *L. speciosum* is a matter we cannot determine. *Rubrum* is accepted as the type in this country, roseum on the European continent. We propose to describe the varieties in default of finding the type.

WHITE FORMS.

Var. album.—The white *L. speciosum*. Bulbs very large, broad-scaled, and dull purple; stems stout, 4 feet to 6 feet high, tinted brown; leaves oval. Flowers white, dotted green near the almost self green star, keeled a ruddy bronze externally, and they reflex so fully as to resemble a snowy ball, the middle of each petal covered with long petaloid processes. A very fine form. It is apparently a European-raised variety, as it appears quite unknown in Japan.

Var. Kratzeri (Duchatre).—The white *speciosum* Lily of Japan. Bulbs yellowish white, conical, and large. Stems greenish, 4 feet to 6 feet high, the upper portions and flower-stalks very thin and attenuated, nodding in a young state. Leaves broadly lance-shaped, pale green. Flowers white, with a thin line of green externally and a green star at the throat, smaller and narrower in the petal than *album*, but more freely borne. The anthers are chocolate in colour. The best white *speciosum* for general purposes. G. B. MALLETT.

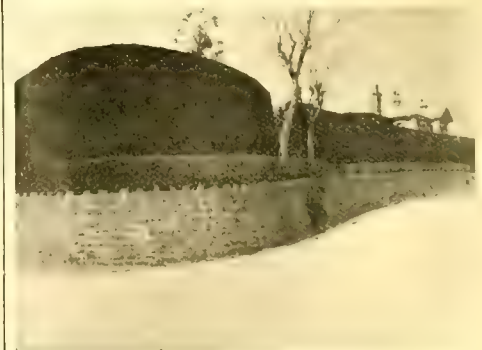
(To be continued.)

STOVE & GREENHOUSE.

CINERARIAS.

THESE might be said to be quite amateurs' plants, on account of their delighting in cool treatment, so a short account of them may prove of service to readers of THE GARDEN.

A good strain of seed is the first necessity, or good results will not follow. Sow the seed in April, May, or June, or, better, at all three periods. Flowers are then obtained over a much longer time. After the seed is up, give as cool treatment as possible, and prick out and pot as required through the summer, 5-inch to 7-inch pots being quite large enough for the final potting.



CUPRESSUS MACROCARPA AS A HEDGE.

The soil may consist of two parts fibrous loam, one of leaf-soil, one of rotten manure, and enough sand to keep it open. They should be kept in cool frames till the end of September, or longer if the weather permits, shading from bright sunshine. Attend to the watering and syringing, so so that they may be kept cool and growing. When housed, trouble may begin, especially if there is much heat in the pipes, or a draught blows upon them, the leaves will turn brown at the edges. They should never be placed on open stages, slate stages with 1 inch of fine shingle or ashes on them, or corrugated iron sheets may be laid on the ordinary wood stage with the shingle or ashes on, and by syringing between the pots once or twice a day, the plants are kept cool and moist. Even when in flower this is necessary, and can be done easily without wetting the flowers.

Single and *Cineraria stellata*, the last named being very beautiful. G. WALLER.

Cock Crow Hill, Long Ditton, Surbiton.

THE FLOWER GARDEN.

A NEW CLEMATIS.

(*CLEMATIS MONTANA RUBENS*)

JUDGING from a small specimen in flower here, this comparatively new Clematis is likely to prove a most useful and beautiful addition to our gardens. It was introduced by Messrs. J. Veitch and Sons, Limited, from the mountainous regions of Central

selected seedlings from it will give us a form of a still rosier shade, but a more delicate colour will be difficult to obtain. There is little doubt about its hardiness, but all climbers are most handsome when well fed and growing luxuriantly. Good culture is therefore well repaid.

J. COMBER.

The Gardens, Nymans, Crawley, Sussex.

[We quite agree with our correspondent, *C. montana rubens* is a very beautiful form. Our illustration shows *C. montana* over an archway in Miss Jekyll's garden at Munstead.—ED.]

ROCK EDGINGS.

SUNDAY morning in May. The garden is never so fresh and sweet and fair as in the hours imme-



CLEMATIS MONTANA OVER GARDEN ARCH.

Remember to maintain a cool, moist atmosphere in the *Cineraria* house, plenty of air without draughts, and with but little artificial heat, except when there is a likelihood of frost. With the above treatment they will grow freely, and delight all who see them, but if wrongly managed they will be miserable specimens. Liquid manure may be given with advantage, but not until they are growing freely and the pots are filled with roots. Small rather than large doses of manure should be the rule, as if anything of a burning nature touches the tender rootlets it will soon show itself in the foliage. Keep down insects by fumigating, for if these are allowed to increase they will ruin the best collection. Good types to grow are the Superb

China, and flowered for the first time in England at their Coombe Wood nursery in the summer of 1903. The slightly larger flowers and the purplish brown leaves and stems are similar to a form sold as *C. m. grandiflora*. The colour of the flowers is good, not the common washy, purplish, transparent white so often found in varieties of white flowers styled *rubra* and *rosea*, but a beautiful clear pink-mauve, which improves in colour after the opening of the flowers, and lasts as long as they remain intact. It appears to grow and climb as readily as the common *C. montana*, and will prove a very handsome companion to it. Probably it will not be long before

diately following the breaking of the day, and at no other time, and in no other place, do we come so near understanding what is meant by "the true joy of living." The silence of the Scottish Sabbath morn is so pronounced that one might almost say it can be heard. The air is laden almost to heaviness with the fragrance of Lilacs, Azaleas, Wallflowers, and Lilies of the Valley. On such a morning as this to saunter leisurely round the garden is one of the purest delights, but the question that always suggests itself to me is this: Are we certain that we always make the most of our opportunities and the best of the means at our command?

In the majority of villa gardens it is necessary that every foot of ground be turned to good

account, and yet how often do we find gardeners, both amateur and professional, content to plod along with edgings of grass, Boxwood, tiles, and sometimes even wood, when with a few cartloads of rough stones, and a very small outlay for plants and seeds, these edgings may be made one of the features of the garden, and a source of interest and beauty for the greater part of the year.

For the guidance of any who may feel disposed to try rock edgings, but who may yet be a little troubled about the results, I would suggest that they make a beginning now, even although only one small bed be done at first. I am certain that the fascination of the new departure will very soon lead to its general adoption.

I will now mention a few of the best of the rock plants, according to colour, that I noticed in flower in my stroll round the garden on this beautiful May morning.

In whites we have *Iberis coraeifolia* (a beautiful perennial Candytuft), *Arenaria montana*, *Tiarella cordifolia* (the Foam Flower), *Saxifraga caesia*, *S. caespitosa*, *S. diapiensoides*, *S. hypnoides*, *S. granulata*, *S. g. fl.-pl.*, and *S. Wallacei* just coming into flower. Then in blues and purples we have *Aubrietia deltoidea* and *purpurea*, the latter a stronger grower and remaining longer in flower than the first named; *Ajuga reptans* (the creeping Bugle), *Gentiana acaulis*, the brightest blue in the garden; *Lithospermum prostratum*, a worthy rival to the *Gentian* in brilliancy of colour, and *Omphalodes verna* and *Anemone apennina* still showing a few flowers, but with their glory departed for a season. In rosy purple, pink, and red we have *Aubrietia Leichtlinii* (a little gem), *Geranium pratense*, *Bryanthus erectus*, *Androsaca ciliata*, *Ourisia coccinea*, and one or two coloured *Saxifragas*, not forgetting our old well-known friend *Saxifraga umbrosa* (London Pride). Although the foregoing by no means exhausts the list of those in flower, I think it is sufficient to show what a wealth of beauty we can surround ourselves with by a judicious use of rock edgings.

Another important point is that not only are these rock edgings beautiful of themselves, but they entirely alter the character of the whole garden. I know that here, where besides rockeries proper, we have something between 400 yards and 500 yards of these edgings, they are a never-failing attraction to visitors.

Helensburgh. G. WATT.

NEW AND RARE PLANTS.

ROSE LADY GAY.

WE have already referred to this lovely new climbing Rose, a hybrid *wichuraiana* of American origin. Everyone knows of *Dorothy Perkins*, which attracted so much attention



A NEW ODONTOGLOSSUM SHOWN AT THE TEMPLE SHOW. (Natural size.)

a few years ago when exhibited, but *Lady Gay* is a finer Rose even than *Dorothy Perkins*. It is evidently of more vigorous growth, and blooms more freely. The flowers are larger than those of *Dorothy Perkins*, and of a richer rose or rose-pink. It was admirably shown in pillar form at the Temple Show by Messrs. William Paul and Son, and received an award of merit. Our illustration shows a spray of flowers; these are produced on the long slender shoots characteristic of the *wichuraiana* Roses, and when the plant is loosely trained in pillar form they fall most gracefully.

A CHOICE ALPINE PLANT.

EDRAIANTHUS PUMILIO, a very dwarf alpine plant, bearing pale blue erect bell-shaped flowers produced very freely from a style of growth so dense as almost to form a cushion, received an award of merit from the floral committee at the Temple Show when exhi-



A PLANT FOR THE ROCK GARDEN (*EDRAIANTHUS PUMILIO*).

bited by Messrs. W. Cutbush and Son, Highgate. It is an ideal little plant for the rock garden.

A NEW ODONTOGLOSSUM.

ONE of the most notable new Orchids shown at the Temple Show was *Odontoglossum amabile* var. *Ixion*, which was obtained by intercrossing *harryano-crispum* and *crispum*. It was exhibited by M. Ch. Vuylsteke, Loochristi, Ghent, and was awarded a first-class certificate by the Orchid committee. The flowers are large, the ground colour being pale blush. The petals are blotched with red-rose, and the sepals are marked with a similar colour; both sepals and petals are unmarked at the tips. The lip is white, except for reddish markings towards the top.

ROSE GARDEN.

EARLY ROSES.

IT is a glad day when the first Rose opens and we know that the Rose season has begun. Just which kind it may be will depend on the width of range of Roses grown in any one garden, but where there is a fairly good collection it is likely to be *Fortune's Yellow*, with its lovely loose, coppery blooms, its dainty leaves, and its cruel prickles. One of the *Briars* will probably be the next. *R. altaica*, the herald of our Scotch *Briars*, the garden descendants of the native *Burnet Rose* (*R. spinosissima*), will be the representative from Russian Central Asia. It is much like the *Burnet Rose*, but that the leaves are of a paler green, both flowers and leaves a trifle larger, and that it blooms about a week earlier.

With the waning of the *Briar* flowers comes the first full-blooming time of that delightful free-growing Rose *Mme. Alfred Carrière*, classed as a Hybrid *Noisette*, with its large pale Tea-like foliage and wide, loose flowers of a delicate warm white—a Rose for many purposes, but best, perhaps, trained through some rather open small tree or bushy brake, as its growth inclines to be leggy below. Still, it is lovely on any old building or fence or as a Rose hedge trained down, so long as there is something to cover the bareness of its lower spaces. Of other well-known Roses the *Boursaults*, derived from *Rosa alpina*, will be the next to bloom, the most beautiful being the pink *Morlettii* and the much better *Blush Boursault*. Roses of this family may be known by the rather long stems with reddish bark without prickles. *Blush Boursault* has a beauty and tenderness of colouring that is hardly matched by any other Rose. The outer petals are of a rosy white of extreme purity, and the clear rosy tinting of the middle of the flower gives the same impression of remarkable purity. In strong or chalky soils this is a lovely arbour Rose, in its whole appearance and character closely in sympathy with the modest

cottage dwelling, while from its daintiness it is equally fitted to accompany the most refined architecture.

By this time there are many Roses in bloom—the grand and rampant Reine Olga de Wurtemberg, lovely when half opened as a cut flower; the earlier of the Penzance Sweet Briar hybrids; the garden varieties of *Rosa alba*; and the rugosas, now rapidly advancing as parents of new hybrids and crosses. Then among the bush Roses there are already many Teas in bloom—

attached. This seemed to be very efficacious when applied as soon as a few spots were seen.

New Roses when received should be potted on and kept under glass, where they will grow fast

Grahame, &c. If there are some strong young shoots available upon an indoor climber, a bud inserted of some of the new Teas will reveal its merits quickly.

Roses on walls must be kept supplied with liquid manure and plain water alternately. Cow or sheep manure is the best article to use. Roses planted out under glass should now receive a good mulch of cow manure, and the lights of the houses should be removed for the summer.

Own-root Roses inserted recently are now ready to pot off into 3-inch pots. Shade from bright sun for a few days. After shifting into 3-inch pots they may be planted out, and by the autumn will make good little plants. All flower-buds should be pinched off the first year.

Prepare borders to plant out the best cutting Roses for winter and spring blooming under glass. Trench well, and incorporate farmyard manure and some half-inch bones. Young plants should be purchased in 5-inch pots for planting out soon. Liberty, Bridesmaid, Niphetos, Duchess of Portland, Mrs. W. J. Grant, Sunrise, Lady Roberts, Mme. Abel Chatenay, Perle des Jardins, Pharisæer, and The Bride are splendid forcing sorts. There is a variety named Baldwin which is said to surpass Liberty. This should be tested, as we want a Rose brighter and fuller than this beautiful variety. Shades must be prepared ready for use when required. Those made with oiled canvas, then painted, are very good. Tea Roses wanted for exhibition keep their beauty much better if papered up when dry. The top must be left open.

the always faithful Mme. Lambard and the deeper-coloured Papa Gontier, the free-blooming Hybrid Tea Viscountess Folkestone, and the handsome Captain Christy, also a Hybrid Tea, one of the best of bush Roses for rather poor soils where the satisfactory cultivation of Hybrid Perpetuals is almost an impossibility.

WORK AMONG THE ROSES.

VALUE OF LOOSE SOIL.—The recent rains were welcomed most heartily by Rose growers. A loose surface invites the rain to the roots, whereas a hard surface shoots the water off. If the soil is still hard, a small fork should be used to prick it up lightly. This often does the work better than a hoe, only care must be taken to avoid going too deep.

Thrips.—These little white insects, found on the undersurface of the leaf, are troublesome in some places, but syringing at night will check their ravages. The Rose is such an object of attack from innumerable foes that the grower needs to be very alert to check them. The maggot is less numerous, but still capable of doing much mischief. It will attack the buds if not prevented by a timely squeeze.

Standard Briers intended for budding next month should be thinned of their growths, retaining three of the best near the top. If stocks are plentiful do not fail to bud a few of the lovely Rambler Lady Gay, also such sorts as Electra, Grüss an Teplitz, some of the best of the climbing Teas, some of the monthlies and Polyanthas, and other Roses not usually grown as standards. Continue the

Disbudding where quality is desired, and the more severely this is done upon the Tea Roses the finer will be their quality.

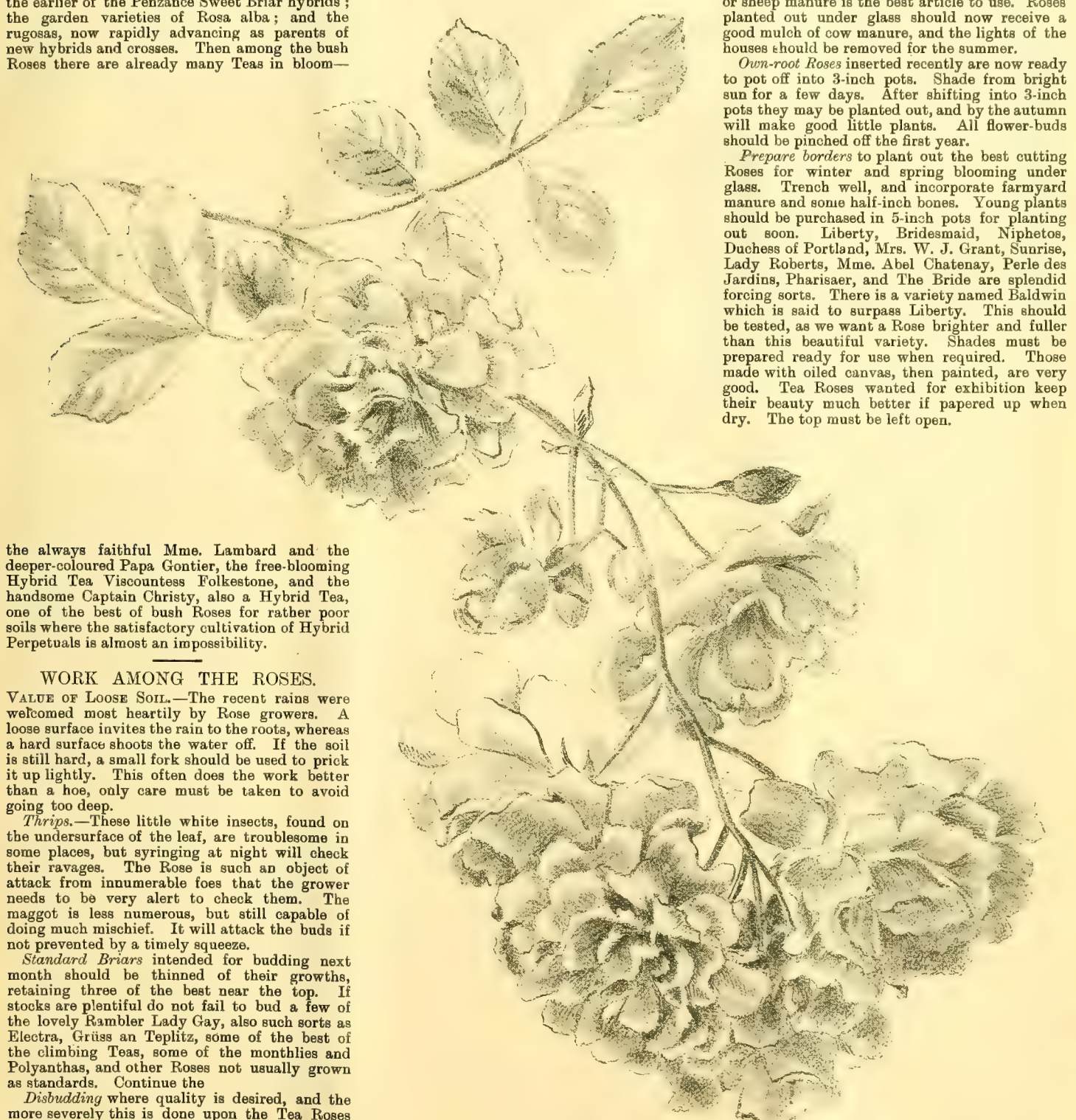
Mildew is not very troublesome outdoors in June, but one must be ready for its appearance. That eminent rosarian Mr. Thomas Rivers advised the dusting of soot upon the dew-covered foliage, and allowed this to remain on four or five days. I saw the Rose growers at the Paris exhibition using bellows with sulphur receptacles

and yield some fine buds. Grand novelties are Dean Hole, Earl of Warwick, David Harum, Florence Pemberton, Etoile de France, J. B. Clark, Hugh Dickson, Joseph Hill, Alice

Roses under glass must be freely syringed morning and evening or red spider will become troublesome. Direct the spray of water on the underside of the foliage. P.

A SPRAY OF THE NEW CLIMBING ROSE LADY GAY (COLOUR, RICH ROSE).

(Finely shown at the Temple Show by Messrs. William Paul & Son.)



GARDENING FOR BEGINNERS.

SIMPLE HINTS.

CINERARIAS AND PRIMULAS.—No time should be lost now in sowing for winter flowering. Sow the seeds thinly in pots, pans, or boxes. Cover the Cinerarias lightly.

Use some rough material for drainage, press the soil firmly down, make smooth, and water with a rosed pot. Sow on the damp surface, cover the pans with a square of glass, and shade till the seedlings are coming through, then gradually ventilate. When large enough to be easily handled prick off into other pans or boxes, and when large enough transfer to small pots singly. During summer grow in cold frames placed in a partially shaded position, and shift into larger pots as required. Primulas are longer in germinating than Cinerarias, and should have a heavy covering, as the seeds are larger, but an eighth of an inch will be sufficient. Equal parts loam and leaf-mould will be suitable for sowing on, with enough sand to keep the soil open, but in potting on increase the loam to two-thirds, and the loam should be of the best quality from the top of an old pasture. So convinced am I of the importance of this, and our local loam being of poor quality, I obtain loam from a distance at considerable expense. If the loam is poor and light, nothing I can add to it in the way of manures or artificials will give the best results. For the last shift a little chemical manure may be added. I use 1lb. to the bushel of compost. The potting should be firm.

The Orange Lily.—There is no doubt that this is one of the most satisfactory Lilies the beginner can grow. Three or four years ago I planted a few bulbs, and now they have developed into quite a good clump, producing each year quite a wealth of blossom. From each stem I get some five or six of the rich orange-red flowers, and as most of them are open at the same time they make a brilliant show. I have had it in both sun and shade, and it seems to grow well in either. It is not wise to have it in a position that is exposed to the sun the whole day long. It seems to do best when it gets sun either all the morning or all the afternoon, and is in shade for the rest of the day. The bulbs are cheap, and no garden should be without them. This Lily (*L. croceum*) should be planted deeply, say 5 inches or 6 inches, because roots are emitted not only from the bulb but from the stem also.

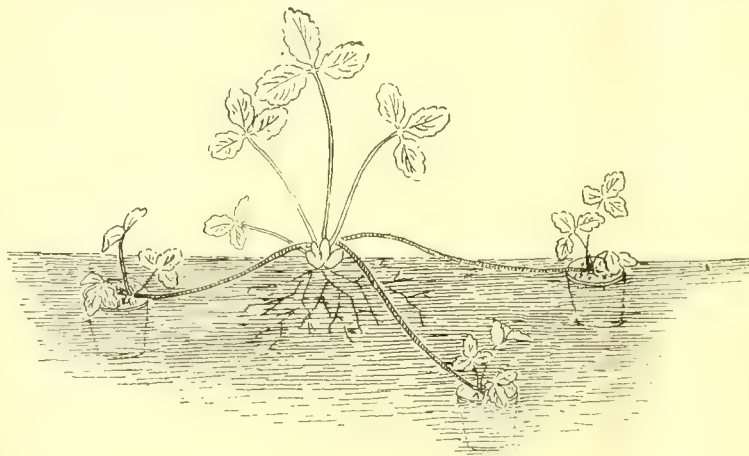
The Double White Rocket.—This is a favourite old plant that was formerly much esteemed, but is not now so common. It is a charming border plant. If an increase of stock is desired, after flowering cut the plants down, and when the young growths break up from the base dig the old plant up and divide into suitable pieces and plant in well-prepared ground. Keep moist and shaded till established. In the autumn transplant to the place they are to flower in.

Two Good Shrubby Spiræas.—This family is a numerous one, some of which may be dispensed with, but *Spiræa aræfolia* and *S. Bumalda* ought to be in every garden. The first assumes a pyramidal outline, and in summer is covered with drooping corymbs of white flowers, which gives

the shrub a very chaste appearance. *Bumalda* is a pink-flowered bush, very distinct and pretty, and the flowers last some time. Plant in autumn or in open weather till March.

Bluebells and Ferns.—Many charming results may be had by associating certain plants that are at their best at the same time. I saw a delightful garden picture the other day. Bluebells, blue, pink, and white, and *Ornithogalum* were planted among Ferns, and the flowers of the former in great profusion associated most pleasingly with the tender green of the young Fern fronds. A carpeting of the variegated *Euonymus* (*E. radicans variegatum*), an excellent plant for covering ground beneath large trees, and a very pretty one too, with the flowers of Bluebells rising through also makes an effective display at this season of the year. In planting even small gardens the association of plants that bloom together is well worth consideration.

Thinning Sweet Peas.—How difficult it is to convince amateurs that they would get more and finer flowers from twenty Sweet Pea plants well grown and given plenty of room to develop than from forty crowded into a similar space. I was



LAYERING STRAWBERRIES.

astonished the other day in a good garden at the extremely vigorous Sweet Peas planted out by the side of a kitchen garden walk. They were quite different from the Sweet Peas that one is accustomed to see in small gardens, of thin spindling growth. The stems were quite thick, and the leaves large; in fact, the plants were the embodiment of health and vigour. The secret of it all was, I was assured, plenty of room and plenty of manure. Give your Sweet Peas plenty of these two essentials, and you can hardly be disappointed.

The Christmas Rose from Seeds.—Some persons think the only way of propagating the Christmas Rose is by division of the roots, but really a better way is to raise plants from seed and—for a time, at any rate—grow the young plants under glass. Of course, to obtain seeds the flowers must not be cut, and the plants should be grown under glass till the seed ripens. The reason why we never see any chance seedlings is because the demand for the flowers at Christmas is so great; there is no chance of getting ripe seeds. Several years ago I was calling upon an old gardening friend in the country, and noticed a very fine, healthy Christmas Rose in a large

tub, I said, "You have a fine plant there!" "Yes," my friend said, "five years ago that was a seed in my waistcoat pocket." Perhaps other friends would like to raise seedlings and increase their stock of this plant.

Layering Strawberries.—It is time for those who wish to increase their stock of Strawberry plants, or who wish to make new beds to take the place of old, to prepare for "layering." Layering means so treating the runners, which are freely produced on Strawberry plants, as to make them emit roots and thus become established plants. It is easy to recognise a "runner." Examine a Strawberry plant during the summer, and you will notice several long stalk-like growths produced around it, each bearing at the end a tiny plant. This is a runner, and the way to obtain young plants is to layer the runner. The best way of layering is to use small pots about 2 inches in diameter. Place a piece of turf in the bottom for drainage, and fill the pots with soil, having first sifted out the coarse particles. Plunge the pots in the ground around the parent plant, and conveniently near the small runner plants. The best of these must then be fixed firmly in the pots, one plant in one pot. This may either be done by means of a wire bent Ω shaped, or by looping a piece of strong matting around the stalk-like growth quite close to the runner plant, and pressing the loose ends into the soil in the small pot with a pointed stick.

Take Care that the base of the runner plant is pressed into the soil. Give water whenever required—it may be twice a week in hot weather—and in two or three weeks roots will take possession of the soil in the pot. When the plant is rooted the stalk connecting the runner with the parent plant may be severed. Late June and early July are the best season for layering Strawberries. The plants then are early established, and make more satisfactory progress than later-rooted ones.

Sublaterals on Vines.—I was asked the other day by a beginner, "What is a sublateral?" When I was a youngster it was usual to call all the second growths of Vines and Peaches laterals. We had a habit then of cutting things short. Now, as we become more scientific, we elaborate and amplify. The first shoots which spring from the Vine roots are now termed laterals, and the second shoots, which spring from the axils of the leaves of the first, are sublaterals, and the best way of managing these is to rub off all below the bunches of Grapes, and stop all above to one leaf, and permit no further progress, which work should be done promptly. When the sublaterals are permitted to extend, an undue stimulus for the time being is given to the roots, and when all this foliage is removed, and the growth checked in consequence, the roots suffer from the supplies being cut off.

Rose Notes.—The north-east winds and frosty nights have been bad for Roses, and the contrast between the Roses merely sheltered by a glass roof, without artificial heat, and those growing outside is very remarkable. Outside the plants are only slowly recovering from the effects of the

cold spring. Inside, without fire-heat, the blooms of *Maréchal Niel* and others have been exceedingly fine. When we look on the two pictures the demand for glass, especially in the town garden, becomes urgent.

Thinning Rose Growths.—Amateur gardeners often complain that although their Roses grow freely enough, they do not flower satisfactorily. This may very often be put down to two causes: Firstly, because the growths are not thinned out sufficiently; and, secondly, that not enough old wood is removed at pruning time to allow the younger wood full exposure and plenty of room. On some varieties of Hybrid Perpetuals the young growths are crowded thickly together, and the weakest and those in the centre of the plants should be removed by rubbing off. Some of the rambling Roses, too, such as *Dorothy Perkins*, send up a mass of growths, especially the first year after planting, when they are cut back hard. To obtain plants that will flower freely, some of these growths must be taken off so as to allow the remaining ones plenty of room to become well developed and ripened by the end of the summer. It is only the well-ripened growths that will flower freely.

Rose Grace Darling—This is one of those strong-growing, free-flowering garden Roses that are eminently suitable to the beginner. The salmon-pink, yellow flushed blossoms are in themselves attractive, although they are more so on the plant than when cut. In water they do not last long, and although slightly fragrant out of doors, when cut and placed indoors the scent is hardly noticeable. *Grace Darling* when established grows very freely, and makes long, strong shoots, which are best if pegged down at pruning time in early spring. During the summer flowers will be produced along the full length of the shoot. A free-growing Rose like this will make a big bush, and needs more thinning out than hard pruning back.

China Roses.—These should find a place in every garden, however small. They bloom from May until October, or even later. Even in town gardens they are worth trying, for, although owing to the fog and smoke-laden atmosphere you may lose a few, those that survive will well repay you. The old pink, the type, is perhaps the favourite still, although there are others of deeper colouring. The clear pink blooms of the *China Rose* associate delightfully with the cool grey foliage of *Rosemary* and *Lavender*, and a small border planted with them is full of fragrance of leaf and flower the summer through.

Fragrant Roses.—A Rose without scent has lost its chief charm, at any rate, so far as its value in the garden or as a cut flower for the house is concerned. It may be useful, therefore, to give a list of a few of the most fragrant Roses as a guide and reference for present or future planting. The common *Cabbage Rose*, pink; *A. K. Williams*, crimson; *La France*, silvery pink; *Ulrich Brunner*, red; *Marie Baumann*, red; *General Jacqueminot*, red; *Fisher Holmes*, crimson; *Mrs. John Laing*, pink; *Gloire de Dijon*, cream; *Viscountess Folkestone*, creamy pink; *Maréchal Niel*, yellow; *Magna Charta*, deep pink; and *Louis van Houtte*, deep crimson.

Salad Plants.—In hot weather sow Lettuces in drills thinly, the drills to be 1 foot apart. Unless the work is very carefully done, if the weather is dry, transplanting may be a disadvantage, as the plants are more apt to bolt. Enough plants should be left unmoved in the drills to give a full crop. The small *Cabbage Lettuces*, of which *Tom Thumb* and *Paris Market* are good examples, may be left 6 inches apart, and, as Lettuce seeds are cheap, a few seeds sown every ten days or so will furnish a reliable supply without much transplanting during the hot weather. This refers more especially to porous

soil, which soon loses its moisture. *Endive* may be sown now and treated in the same way. It is not much use sowing *Endive* before June, as the early-sown plants often bolt. *Rampion* has a white, round, bulbous root, very much like a white Turnip Radish. The seeds are very small, and should be sown thinly and very lightly covered. They may be thinned to 3 inches. Sow Radishes now in cool positions every ten days. The French Breakfast and Turnip varieties are best for sowing now. If sown in drills drawn 6 inches apart, and a little short manure is laid between the rows, the Radishes will be crisp and cool. Sow Mustard and Cress in the shade now, cover with Rhubarb leaves without soil, and keep moist.

Depth of Covering for Late Peas.—We find in rather light soils 4 inches is about the right depth, and the drills are drawn deep enough to permit of the surface, when the Peas are covered, being 1 inch below the natural level, so that, if it should be necessary to water, the Peas may get the full benefit of it. But if the rows of Peas are mulched on both sides with manure there will not be much watering required. When late Peas are planted in trenches they may follow greens or any other crop.

Lavender Hedges.—Lavender is a neglected plant, except in country cottage gardens. It makes a delightful dwarf hedge, and bears cutting down each autumn for the sake of its flower-heads with impunity. The best time to cut Lavender is when there are few purple flowers out on the spike. If the cutting is left too late the flowers shake off when the spikes are gathered. Lavender dislikes being transplanted or disturbed. Plant it and leave it alone, and year after year you will be rewarded with a rich harvest of its fragrant flowers.

GARDENING OF THE WEEK.

FLOWER GARDEN.

GENERAL WORK.—In many places bedding out claims priority to most other operations at present, and it is advisable to push forward with the work. Roses must be kept free of green fly and caterpillars, and liberal feeding supplied to those in, and about to, bloom. Pick off the dead flowers, cutting out weak spray, and staking or tying in strong growths. Carnations and many other plants need supporting with neat, inconspicuous stakes as the flower stalks lengthen. Live hardy edgings and ground-work of beds and borders should be clipped, trimmed, or pegged down, as the case may be, and the hundred and one other items continually cropping up in the general routine must not be neglected. Keep

LAWNS in perfect order by frequently mowing, sweeping, and rolling, and if Daisies, moss, and weeds are still troublesome apply "Chimax" Lawn Sand. It is a more suitable dressing for this advanced season than the mixture I recommended for the same purpose for a spring application. The effect of the sand is to turn grass and weeds brown and unsightly for a time. If coarser weeds are in evidence, pay attention to them with the "Wikeham" Weed Eradicator charged with a strong liquid weed-killer.

BAMBOOS.—This is as good a season as any—I believe it to be the best—to divide and replant Bamboos, just as the young growths are beginning to shoot up. Before replanting give the sites thorough cultivation in every way, and should the soil be poor and unsuitable for producing robust growth, clear some of it away and replace with strong holding loam. Add well-decayed farmyard manure lavishly, or instead of it as much of some approved fertiliser as can be used with safety, thoroughly mixing and incorporating the whole. In dividing established clumps great care must be exercised to avoid snapping off the young culms, for they are very brittle. Of a certainty the centres of the masses of soil and roots will be dust-dry, so it will be beneficial to immerse them in water until soaked through before planting. Plant firmly and water to the point of saturation. Much heavily and sprinkle the tops frequently. In spite of all this most of the leaves will drop, and the plants be rather unsightly for a time, but the young culms will grow apace at once, laying the foundation of good plants next year. Plants in pots can, of course, be successfully planted at any season. The general and profuse flowering of many Bamboos this year has resulted in a more withered effect just now than usual, but I hope most of them will quickly recuperate and regain their freshness and vigour ere the winter comes round again. *The Gardens, Tan-y-bwlch, North Wales.* J. ROBERTS.

INDOOR GARDEN.

GLOXINIAS AND ACHIMENES.—Weak manure water may be given with advantage when the plants are well rooted. The house where they are growing should be kept a little drier now they are coming into flower, or, if this cannot be done, remove the plants to another house. The Achimenes growing in baskets will not require staking, but the plants in pots require the support of a few twigs. The present is a good time to propagate Gloxinias from the leaves. Select only the choicest varieties, cut the midrib in several places, and peg or keep in position with stones on pans of light soil, covering the surface with a layer of sand. Placed in a warm moist house small bulbils will be formed, which make good plants the following year.

WINTER-FLOWERING CARNATIONS.—The autumn-rooted plants are ready for 6-inch, and the spring-rooted for 5-inch, pots. Use a compost of three parts fibrous loam and one of leaf-mould and dried cow manure, adding plenty of sand or mortar rubble to keep it open, and a little soot and bone-meal. Use clean pots, good drainage, and pot firmly. Place in frames, and keep moderately close till rooting in the new soil, when more air can be given, and, finally, the lights removed altogether except during bad weather. Attend carefully to the watering.

HUMEA ELEGANS.—Sow seeds of this fragrant ornamental plant in shallow, well-drained pans. Germination is often very irregular, due probably to the seeds being kept some time before sowing; therefore to try and prevent failure from this cause always sow new seeds. Cover the seeds slightly with fine soil. Never allow the plants to receive a check, or the result will be disastrous. The flowering spikes will soon be showing on the large plants raised from seed last year. Give plenty of air, and manure water weak and often. The brown and white varieties are both worth growing.

RICHARDIA AFRICANA.—Select a piece of ground for planting these out; dig and well manure it. As they require abundance of water, it is much better to plant them in shallow trenches. Divide the plants into single crowns. If more stock is required, the young side shoots may be planted on a separate piece of ground. Should a few be wanted to flower in autumn, select sufficient of the stronger plants and grow them in pots.

GENERAL REMARKS.—Sow seeds of Canterbury Bells, double German Wallflowers, also a few choice single varieties of the latter. Besides being easily grown, they give a delightful perfume to the greenhouse in spring. It matters little whether the seed is sown in boxes or in the open ground. The plants of *Eupatorium lanthum* cut back after flowering are ready for potting on. Select some of the stronger seedling Begonias for autumn flowering. Shift on into 5-inch or 6-inch pots.

ARTIFICIAL HEAT.—It is possible, and even beneficial to the majority of plants, to dispense with artificial heat for a couple of months in summer. This permits of the pipes and boilers being thoroughly overhauled, and any repairs necessary done with as little inconvenience as possible. The warmer houses can be closed and syringed about 3.30, shutting in the sun-heat, which is better for the plants than fire-heat.

Royal Botanic Gardens, Kew.

A. OSBORN.

ORCHIDS.

ODONTOGLOSSUM CRISPUM and its numerous distinct varieties, also *Masdevallias* of the *Veitchii* and *harryana* types, are now in flower in the cool house. Now is a suitable time to caution both owners and growers against the too frequent practice of allowing small weakly plants of *Odontoglossums* to carry too many flowers or the spikes to remain on the plants for too long a time, and, as regards strong, healthy specimens, it is far better to cut off the spikes after the flowers have been open a reasonable time than to allow them to remain on until the bulbs are shrivelled. The flower-spikes when cut, if placed in the cool house with their ends in water, will retain their freshness and beauty for any reasonable length of time, and the neatly-made "Outram" flower-tubes are especially adapted for this purpose.

WEAK PLANTS of *Cattleyas*, *Laelias*, and their hybrids, and those that are not well rooted suffer considerably if allowed to carry their flowers too long. This is especially applicable to such delicate species as *C. Mossie Wagenerii* and *C. M. reineckiana*. Such plants can be saved by removing the flowers as soon as they appear or by cutting the flowers immediately they are fully open. Such warm-growing species as *Aerides*, *Vandas*, *Saccolabiums*, and *Angraecums* which bloom at this season frequently lose much in value and appearance from the same cause. Many Orchids are also injured when in flower by removing them from their moist-growing atmosphere to what is generally termed the show house, oftentimes a dry, cool, and, what is worse, draughty place.

THE COOL HOUSE now needs considerable attention, and during hot weather everything possible should be done to keep the temperature a few degrees lower than the external air, also the plants should be carefully protected from strong sunlight. During very dry and hot weather the house should be well ventilated through the bottom lights or openings, but, if there is any likelihood of the flowers becoming spotted through excess of atmospheric moisture, air should be admitted at the top, always using the ventilators on the sheltered side of the house. Our cool house is span-roofed, running north and south, therefore fully exposed to the sun's rays all day long. During the early spring months the glass on this house was stippled over, as advised in my calendar for March 4, and I may add that the glass, when stippled with the mixture therein advised, always feels cool, even during very hot weather. Then, by occasionally damping between the pots and the immediate surroundings, a cool atmosphere

is easily maintained. During the hottest part of the day the plants are lightly dewed over several times, using a fine sprayer for the purpose and cool, clear, soft water. The blinds, which are open lattice wood, are raised to about 9 inches above the glass, which allows a free circulation of air to pass between. These blinds are let down in the early morning when the sun commences to raise the inside temperature above 60°, and are pulled up again about 6 p.m. with the sun shining full on the house.

Burford Gardens, Dorking.

W. H. WHITE.

FRUIT GARDEN.

YOUNG VINES.—Newly-planted Vines must be encouraged to grow as freely as possible, consistent with strong, healthy foliage. Damp down the paths and walls of the house frequently during fine weather in order to keep the atmosphere in a moist condition. To prevent the surface of the border becoming dry too quickly a mulch of old spent Mushroom bed manure may be given. Do not pinch the laterals too hard, but allow them to extend to two or three leaves before stopping. The leading shoot may be stopped two or three times before it reaches the top of the house. Pot Vines intended for fruiting next year must be given very liberal treatment in order to build up strong, healthy canes. It must be remembered that the success of next year's crop depends to a great extent on the growth the Vines make during the present season. When the pots are becoming full of roots they may be fed with liquid manure and Le Fruitier. Close the house early in the afternoon after well syringing the Vines.

LAYERING STRAWBERRIES.—To be successful with the early forcing of Strawberries in pots it is necessary to have strong, well-ripened plants by the end of autumn. No time must now be lost in layering the first batch of plants. In the absence of rain the stock plants should be thoroughly watered before layering commences. Royal Sovereign is the variety we rely on for the earliest crops, and my experience is that it is by far the best forcing Strawberry. Fill the requisite number of 3-inch pots with rich loam, and make it fairly firm. No drainage will be required at this stage. Place the pots close together between the rows, partly plunging them in the ground to shelter them from the glare of bright sun. This little matter will amply repay the extra trouble entailed, as the plants will not require half so much watering as they would if the pots were exposed. Choose only the best layers, and secure them in the pots with a small peg or piece of raffia pressed into the soil. They must be damped with a rose can morning and afternoon till they have become established in the pots. La Grosse Sucré and Waterloo are very attractive and good sorts for later crops, but they do not produce such an abundant crop as Royal Sovereign. A batch of plants should be layered for making an early border outside. Laxton's Noble is a splendid sort for this purpose. Although not so good as some kinds in point of flavour, it makes up for this by its heavy cropping qualities, and it ripens several days in advance of any other variety I know. This is a great consideration, at a time when fruit of all kinds is in great demand. The border should be well prepared, using plenty of rotten manure in the process. The plants should be put out as soon as fit in order that they may make as much growth as possible before the end of the season.

PROTECTING THE FRUIT.—Now that the fruit is ripening some kind of protection will be necessary to keep off birds. A good plan is to erect a temporary framework, over which should be placed fish-netting high enough for a person to get underneath to gather the fruit without removing the net. In this way much trouble will be saved. The nets will also be kept in better condition and less torn than if they were being constantly removed.

E. HARRISS.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

CARROTS.—These palatable and nourishing roots are like many other vegetables, most desirable when they are young and tender. To provide roots young and sweet, occasional sowings must be made during the season. Carrots drawn from earlier sowings will be in fine condition for all cooking purposes for some time to come, but towards the end of August they will begin to lose some of the delicate flavour so desirable. I find Champion Scarlet Horn an excellent variety to sow at this time. It develops quickly, and a large number of fine roots can be grown on a comparatively small piece of ground. A plot that has just been cleared of early Cabbage answers the purpose very well for a second sowing of Carrots. In order to obtain a very fine mould, have the ground deeply dug and well broken up with the spade, and when this has been accomplished spread wood ashes all over the ground and draw out drills 12 inches or 15 inches apart, and sow the seed thinly. A good supply of sweet, tender roots in autumn will be the result.

CELERY.—A good plantation of this esteemed vegetable should now be made in trenches prepared some time ago. I need hardly say that the soil in the bottom part of the trenches where the plants are to grow cannot be too rich. At the same time the manure, whatever kind is used, must not be too fresh. Where earth closets are used, soil from these mixed with earth weekly or biweekly, as the case may be, and stored in a heap till wanted, forms one of the best manures for Celery. Failing this, some good cow manure which has been turned once or twice will do for forking into the bottom of the trenches. Choose a dull day, if possible, for transferring the young Celery plants to the trenches, allowing 9 inches from plant to plant, and two rows of plants in each trench. Place the plants alternately, and as they are very liable to be damaged in the planting process, both roots and foliage should receive

careful handling. When the planting has been completed, give a thorough good soaking of water and shade with a few Beech boughs for some days, especially if the weather is bright and sunny.

LEeks.—These should be ready for removal to their permanent quarters, and, like Celery, must have rich soil in which to grow. When circumstances allow, I prefer growing Leeks in close proximity to the Celery, and somewhere at no great distance from a good water supply.

ENDIVE.—A good sowing of this should now be made, so that enough well-grown plants may be in readiness for blanching in autumn when the Lettuce supply begins to fail. Ground prepared as for Lettuces will do very well for the growing of Endive. It must, however, be fairly rich, as, like other salads of the same nature, it must be well grown or its crisp tenderness will be wanting. I prefer the moss and green curled varieties. They can be well grown in rows 12 inches apart, the drills to be about 1 inch deep. When the young plants have fairly started to grow, keep the ground free from weeds and the surface soil open round about them.

RUNNER BEANS.—Green Peas, unfortunately, have a tendency to become scarce about the end of September, caused perhaps by wet weather, or low night temperatures when in flower, or other causes, over which the grower has no control. To meet this I know of no better substitute than plenty of good fat pods of Sutton's Al Runner Bean, and a good sowing of this excellent vegetable should now be made on a piece of ground well sheltered from autumn winds, which generally come from a westerly direction. Here I grow our late Runner Beans on wire netting placed round the Gooseberry ground to keep birds from taking the fruit. As the netting is over 6 feet high, it forms a splendid trellis to which the Beans can cling. From this trellis we gather many late dishes, last year even as late as November. When a cold night threatened, a few mats were thrown over the runners. Independent of this useful wire trellis, however, I make the ordinary Bean-stake trellis of sufficient strength to carry a few mats when necessary to cover the runners on a cold night.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

GRUBS ON PINE TREES (S. M. R.).—The grubs in the shoots of your Pines are the caterpillars of a small moth (the Pine tortrix), which kill the shoot that they attack. As to permanent injury to the trees, that depends on the number of shoots injured. This pest is a difficult one to deal with. In young trees the infested shoots should be cut off and burnt, but in the case of trees which are too large to treat in this manner, I do not know what to recommend. No insecticide could be made to reach the caterpillars by spraying, and though the moths might be deterred from laying their eggs if the shoots were sprayed with paraffin emulsion at that time, it would be difficult to judge when the operation should be carried out, and it would be very difficult to ensure that every shoot of the trees were protected by the insecticide, particularly in wet weather.—G. S. S.

CLEANING PLANTS (H. D. H.).—Such broad-leaved plants as Aspidistra, Dracæna, and Palms may be best cleaned with a sponge and warm soft soapy water. Once a week will be sufficient to keep them in good health. During a warm shower of rain it is a good plan to place them out of doors, the warm rain does them a lot of good,

both by cleaning the leaves and soaking through to the roots. Ferns cannot very conveniently be sponged when they get dirty because of their much divided fronds. The best thing to do is to place them on the floor and syringe the fronds with soft, warm water. Scale insects which are liable to infest Ferns may then be easily removed with a small brush, soft soap, and warm water. To rid your greenhouse climbers of green fly you should syringe them with tobacco water, i.e., water in which tobacco paper has been soaked, or you may dust them with tobacco powder. A convenient insecticide is the XL All. This is a liquid which has to be vapourised over a small lamp. The fumes which arise are deadly to the green fly. You must not remain in the house. Light the lamp, place the liquid upon it in the little bowl provided, then leave. Make sure that the ventilators and doors of the house are closed. This vapourising or syringing with tobacco water should be done in the evening. You might get rid of a good deal of green fly by syringing the shoots forcibly with clear water.

WORK AT KEW (C. S. C.).—The working hours of young gardeners at Kew are from 6 a.m. to 6 p.m., with half-day holiday every other Saturday. The wages are one guinea per week, with extra pay for Sunday duty. In addition to performing ordinary gardening work during the day, the young men at Kew must attend certain courses of lectures in Botany. Undoubtedly you would benefit by a year or two at Kew. Besides the lectures you have the advantages of a good library, a debating society, British botany club, and unexampled opportunities for learning plants. You should write to the curator, Royal Botanic Gardens, Kew, who would doubtless send you a form to fill up.

PLUM TREE UNSATISFACTORY (J. S.).—We have had several complaints similar to yours about the Greengage Plum tree being covered with blossom, yet producing little or no fruit. While it is true that the Greengage is not so regular and so sure a cropper as some other varieties of Plums, we think the evil is due partly to the exposure of the flowers during cold weather, and to not taking care to keep the tree well watered while the fruits are forming. It is advisable to protect the blossom of the Greengage Plum, for late frosts are so destructive, and as this variety often sets irregularly it is especially necessary to protect it. Wall fruit trees do not benefit by rain to nearly the same extent as trees in the open; in fact, if there is a wide coping to the wall the roots receive little or no rain. Just when they are in flower and the tiny fruits are forming is a critical time, and the roots should on no account be allowed to get dry. When the tree is planted against a warm house wall the soil is particularly liable to become dry.

GLANDS ON CHERRY TREES (C. E. Fletcher).—The glands you notice on the leaves of your Cherry tree are by no means unusual on the leaf-stalks of Cherry leaves, though they are not constantly present as in the case of the Gean or the Bird Cherry. The leaves you sent were unusually large, were they not? and their having grown so freely may account for the well-developed glands. They are not the work of an insect, though what use they are to the tree is unknown.—G. S. S.

FUNGUS ON ROSES (W. Lee).—The fungus attacking the shoots of your Roses is the Rose rust (Phragmidium subcorticum), a very troublesome pest at times. It appears later on in a somewhat different form. The undersides of the leaves become covered with little patches of yellow spores, from among which appear little tufts of black-stalked spores. I have never heard of formalin being used as a fungicide, and cannot say what effect it might have on the plant. If you have the opportunity of trying it, and afterwards give us your experience, it would be, I am sure, most interesting to many persons. The usual remedies are spraying the bushes with Bordeaux mixture or Cupram, burning as many

of the infected leaves, &c., as can be picked off, collecting and burning the leaves as soon as they fall in the autumn, and in the course of the winter or early spring, before the buds show any sign of opening, spraying the bushes and the soil beneath them with 2oz. of sulphate of copper dissolved in 3 gallons of water.—G. S. S.

INSECT (W. K.).—The insect you now send is a specimen of the black Vine beetle (*Otiorynchus sulcatus*). It feeds on the foliage of various plants, under glass particularly on Vines and Ferns, and in the open air on Raspberries and Strawberries. These insects hide themselves so cleverly during the day that it is then almost impossible to find them, but after it is dark they leave their hiding-places and begin to feed. They may then be shaken off the plants on which they are feeding on to white cloths, which should be laid under the plants during the day, or on to freshly-tarred or painted boards, or sheets of metal, or into an open umbrella. They usually fall to the ground on the slightest alarm, where they lie motionless as if dead for some little time. Even throwing a bright light on them suddenly will make them drop from the leaves. They may be caught by tying small bundles of dry hay or moss to the stems of the plants they are attacking. These will afford convenient hiding-places for the weevils during the day. The traps should be examined every morning. The grubs of this insect are very injurious to the roots of many kinds of plants, Ferns, Cyclamens, Primulas, Begonias, Sedums, and Strawberry plants being their favourites. The only practicable way of destroying them is to examine the roots and pick out the grubs.—G. S. S.

SUNK GARDEN (J. H. S.).—A good proportion for your sunk garden would be to leave a 15 feet wide strip of turf and to sink the middle space, which will be about 75 feet by 63 feet. A dry walling, with plants in the wall, is much better than a turf slope. The sunk space should be carried down the whole depth at the upper northern end, so as to come out level at the southern. It would be best for the north and south 15 feet verges to be accurately levelled and carried through the whole width of the ground, leaving those on the east and west sides to take the whole slope. Steps 8 feet long, 18 inches in

the tread, and 6 inches in the rise should come down in the middle of the top wall, projecting forward into the sunk ground. A border the width of the projection of the steps could be carried all round, except for a way out, the same width as the steps, on the south side. If beds in the turf are desired, there is nothing better than the old Tudor arrangement of borders following the rectangular outline of the ground, cut across by grass spaces on all four sides. The measurements would approximately be: Border next wall, 8 feet; grass, 5 feet; border, 7 feet. This would leave room for a long-square tank about 19 feet by 8 feet, surrounded by 6 feet of grass.

IRIS ANGLICA (K. Caniothen).—If you have been treating these as permanent bedding plants, so to speak, it is obvious that this treatment does not agree with them in your garden. Lift and dry them off, and replant not earlier than October. Select fresh and, preferably, unmanured ground. Try them with biennial lifting. In most soils these things are not satisfactory when permanently planted. The soil should be deep and well drained, and usually in the more heavy soils the bulbs live longer.

PHLOX COQUELICOT (K. Caniothen).—This variety is subject to the disease which seems akin to gout. Gouty stems appear most frequently on old plants, and as you desire to grow this variety you had better treat it as a biennial, that is, keep up a fresh stock. If you take cuttings of the tops after flowering, shorten back beyond the flower-head, and insert the fresh 3-inch long bits that appear. In a cold frame in sandy loam you will find many excellent tufts for planting in February or March ensuing. In this way the vigour of Coquelicot can be maintained in most gardens.

BIRD (F. Warburton).—From the appearance of your little bird I imagine that it died of starvation. Its crop was absolutely empty, and it was in very poor condition in every way, but I cannot say what the cause of its being in such condition was. You had evidently supplied it with food, but perhaps it was not of a kind suitable for it, or the bird might have been too ill to eat it. You do not say if the bird had been ailing for some

time, or had died suddenly, and, in fact, you give no particulars to help one in any way.—G. S. S.

COMPOSITION OF SOIL (H. J. S.).—Scientifically described, the sticky or adhesive substance in clay soils is a compound of silica, alumina, and water, and is technically known as hydrated silicate of alumina. But this ingredient is, after all, in clay soils but a very small portion. The primary cause of the adhesiveness of clay is the exceeding fineness of its component parts. Literally, clay dried and crusted is composed of the finest of dust or particles, and its adhesiveness primarily arises from its capacity to retain water and exclude air, because of this exceeding fineness. To convert it into a fairly porous loam fully one-third of sharp sand should be added. Still there seems to be no possibility of rivalling Nature in her capacity to create real or good loam in the same way that it is found in old pastures. In attempting to make a loam from London clay it is evident that such material would have to be exposed to the air for a year at least. Also that the sand ingredient must be sharp white sand and not yellow sand, which as a rule contains some clay. With the best of effort the result would be a very poor loam.

PEACH FOLIAGE DISEASED (J. B. H.).—The small shoots and leaves received were much shrivelled, but from their appearance we have no doubt that the tree is suffering from a fungus parasite. We presume the tree is growing out of doors, as the disease seldom attacks those grown under glass, and, indeed, it seldom makes its appearance on trees grown out of doors, except when the weather happens to be abnormally cold, as has been the case this year, causing what really amounts to a chill, and inviting an attack of this fungus. The best thing to do now will be to cut off the badly affected parts of the branches and leaves and give the tree partial shade for a time by hanging over it a double thickness of an old herring-net or something of that sort not too dense, and encourage new growth by syringing the tree night and morning on warm days. Also take away some of the old surface soil, say, 2 inches deep, and replace with a compost of fresh horse manure and loam in equal quantities well mixed together (about a barrowload will do).



GROUP OF WEBB'S CINERARIA STELLATA AT WEBB AND SONS' NURSERIES, STOURBRIDGE.

This will encourage and promote greater root action, and result in a better and healthier growth of foliage. This once secured the shade must be dispensed with. It is nearly always the case when a tree is attacked by this disease that the tree itself is more or less constitutionally weak, and therefore prone to contract disease and also to attacks in after years. To avert this we would advise the tree being lifted this autumn (about the middle of October) and replanted in a bed of new turfy loam, with a little addition of lime and short manure. This work, if carefully and expeditiously carried out by a competent hand, need give the tree but little check, or reduce the number of fruit it would carry next year. After this treatment the tree would take a new lease of life for many years, and be immune from disease by reason of its extra vigour and better health.

ROSE MME. BERARD WITH DISEASED SHOOTS (*Rivington Hall*).—The portion of stem you sent of the above Rose was attacked with what is known as Rose tumour (*Botryosphaeria diplo-dia*). You will find it described by Dr. Cooke in the *Journal of the Royal Horticultural Society*, Vol. XXVII., Part I., page 45. Dr. Cooke cannot name a remedy. We have found this disease frequently attacks Roses with soft wood, such as the variety named will usually produce. You cannot do better than cut back past these diseased parts, and syringing the stems with Bordeaux mixture might have a beneficial result.

ROSE GRAND DUC ERNST LUDWIG UNDER GLASS (*T. E. Crompton*).—This variety, which was sent out with a wonderful flourish of trumpets as the red *Maréchal Niel*, is not at all a good variety to grow under glass. Its shy-flowering habit is so detrimental to its otherwise useful character, for we must admit it is a grand bloom when at its best. We should say one must have a good old specimen of the variety before it will flower freely, and, unless a lofty conservatory is available, we should not recommend this Rose for indoor growth. Why not spread it out well and bud it all over with a variety you can rely upon; for instance, *Mme. Abel Chatenay*, *Liberty*, *Lady Battersea*, *Frau Karl Druschki*, &c.? The budding could be done at once. You can procure plants with buds from the leading nurserymen. If one has a *Banksian* Rose or a large plant of any free-growing sort growing under glass which it is desired to convert into a "thing of beauty," now would be a good time to insert buds. Keep new growth suppressed for a time, until, finally, next spring the growths are cut back.

POTATOES FOR NAME (*R. G.*).—We can name your coloured *Kidney No. 3* as *King Edward VII.*, but solely because of the coloured blotches on it. As to the others no one could name them. There are 100 white skin varieties that give tubers of similar shape. Really in the case of nearly all white varieties it is possible to name them correctly only when growing, and then with other varieties, or where in their tops they have some features that enable them to be easily recognised. Even where samples are sent in the hope of getting them named, they should be the finest and truest to the general character of the stock that can be found.

POLYANTHUS FLOWER (*A. C.*).—We cannot praise your *Polyanthus* flower, as it is inferior in form and colouring to myriads we see every spring, and which are now grown in great abundance. A visit to the annual meeting or show of the *National Auricula Society* in London each April, when *Polyanthuses* are largely shown, would reveal to you something of the quality of these flowers. A fine strain of border *Polyanthus* has flowers of large size, rich in colour, the centres clear lemon or yellow, thrum eyes, and borne in rich profusion on stout, erect stems. The colours range from the purest white to rich deep maroon, indeed, almost black. It is late to

sow seed, but were some got now and sown in shallow boxes under glass, the seedlings as soon as strong enough being dibbled out into good soil till the winter, they could then be planted where to bloom. Many of the plants would flower next spring, and thus you would see how fine, varied, and beautiful present-day *Polyanthuses* are.

VINE LEAVES DISEASED (*R. A.*).—We can find no trace of fungus or insects on your Vine leaves. The injury has more the appearance of a scald, and the damage, we think, has been caused by too low a temperature at night, with the result that the atmosphere is heavily charged with moisture. This has not evaporated before the sun has attained considerable power, thus damaging the leaves before they have time to dry. Several other similar cases have come under our notice this year. We would advise you to apply a little fire-heat, with a small chink of air at front and back during the night. This will cause a gentle circulation of air, and produce a healthier and more buoyant atmosphere. The injured Vines should be lightly shaded until they have recovered. Injury somewhat similar to this we have seen caused by the foliage being too crowded near the glass, and accidental dryness at the roots on other occasions has been the cause.

CARNATIONS DISEASED (*J. F.*).—There is no fungoid disease on the Carnations. The plants have all the symptoms of having had too much water. As they were planted out of doors in April, they could not require much water even in a dry season. They are also bad layers. The stems are woody, and such plants suffer more quickly than others. One has to be very careful in applying water to Carnations in April and May. I have a large stock of Carnations under my care, and although not a drop of rain has fallen for a month, I have not watered any of those out of doors, nor do I intend to do so for two weeks longer, and all the plants are in vigorous health. The nights have been very cold up till now, and this with too much water might cause the mischief to the leaves.—*J. D. E.*

NARCISSUS POETICUS FL.-PL. (*Constance Maule*). The failure in the case of the double *Poet's Narcissus* to open its flowers is one of the chief drawbacks to this otherwise excellent and late-flowering variety. Unfortunately you give us no idea of the conditions under which the plants are growing, and in a large number of instances the flower-scape appears and exhibits every sign of developing to the flowering stage, but presently dries up entirely. In nearly all classes of light soils, wholesale or partial failure is general, and in southern counties invariably so. During a protracted experience we experimented largely with this kind, and came to these conclusions: That the variety prefers moisture at the roots at all seasons, deep planting, a heavy, even retentive, soil at all times, while most impatient of disturbance. All the poeticus forms are perpetual in their rooting, and the root-fibres are most distinct. By reason of this continuous rooting character drying off out of the soil is weakening, if not injurious. As you possess sufficient bulbs for a bed we suggest you proceed as follows: Dig up the entire bed, unless you can devote an entirely new bed to be prepared in advance, any time in June, and replant at once, taking care that the bulbs are meanwhile protected from external drying conditions. As you are an enthusiastic amateur you will delight in doing the right thing at the right moment. Excavate the bed to a depth of 2 feet, and if the soil at this depth is gravel or sand, insert 3 inches to 4 inches of clay to retain the moisture. Let the remainder of the soil be made up of clayey loam, adding a proportion of one-third of well decomposed manure, together with one peck of bone-meal to a bed 6 feet by 6 feet. A sixth part of sand may be used to mix with the heaviest soil only. Incorporate the manure most freely

with the lower soil, and replant the bulbs at 8 inches from the surface. The position of the bed should be sheltered from north and north-east if possible. Preferably the bed's surface should be depressed, or if not this, at least level, so that the rainfall may reach the bulbs uniformly. We have recommended this special treatment for some years, and have the satisfaction of knowing that its adoption has been attended with success. Water may be given in dry weather, and liquid manure in winter, when it would remain about the roots of the bulbs. Tuberous *Begonias* for summer may be planted on the surface of such a bed with impunity.

FEEDING SWEET PEAS (*A. B. C.*).—This depends largely upon the manner in which the soil was prepared in which they are growing. The land should have been well trenched and a liberal amount of farmyard manure incorporated. At the present time it should be mulched with well rotted manure, but we gather from your letter that you may have some difficulty in procuring this. The next best thing to do is to keep the soil well stirred, so that there is 2 inches or 3 inches of loose surface soil. We think you would find fish guano a good article to make liquid manure with. The best manner of applying this would be to scatter about one teaspoonful to the lineal yard, and then water this in, hoeing the soil the next day. Soot is much appreciated by Sweet Peas. Put 1 gallon of soot in a bag, and drop it into a vessel holding 18 gallons of water. Allow this to stand about five days before using, then apply at half strength, giving 1 gallon to a lineal yard. Give the fish guano one week and the soot liquid the next week. Keep all old flowers and seed-pods picked off each day.

RHODODENDRONS (*Holland*).—*Rhododendron racemosum* can be obtained from any good tree and shrub nursery. *R. chrysanthum* is a dwarf, yellow-flowered species from Siberia, the Caucasus, and *Kamtschatka*, where it is found growing in swampy ground on high mountains. It is an extremely difficult plant to grow, and it is very rarely met with in cultivation. In height it grows from 6 inches to 9 inches, and is said to be pretty when in flower. *Rhododendron Smithii aureum* is in cultivation, and it is very eagerly sought after, being very distinct and pretty. It belongs to the set that has been called *Azaleodendron*, being a cross between an evergreen seedling and *R. (Azalea) sinensis*. It grows 2 feet or more high, and bears good sized, compact trusses of yellow flowers, which are about similar in size to those of *Rhododendron sinensis*. It is doubtful whether you will be able to obtain it in quantity, as most nurserymen have a difficulty in obtaining it fast enough to supply orders.

MANURING CARNATIONS (*Novice*).—Bone dust is a good manure to mix with the soil for Carnations, but for surface dressing in May decayed stable manure is best for the open border. Give a good dressing all over the ground around the plants, and if it is thought objectionable a very thin layer of fine soil over the manure will do away with this objection. There might be some advantage in mixing a small quantity of bone dust with the manure, say one 6-inch potful with a barrowload. May is always the best month in which to surface-dress Carnations.

TO PROPAGATE TREE PEONIES (*A. W. W.*).—You should graft your tree *Peonies* on roots of herbaceous *Peonies*, the work being done in spring indoors. Ordinary cleft graft is the best. You may either use the old wood with dormant eyes, or young soft wood. You must use bottom-heat and keep in a close case until the union of stock and scion is complete. The specimen you sent is *Daphniphyllum macropodum* in flower. It has nothing to do with *Rhododendron*, and you must have been mistaken in thinking that it had heads of *Rhododendron* flowers last year.

PEACH TREE BLISTER (*F. Hawking*).—Peach leaf-curl, or leaf-blister as it is at times variously called, proves very injurious to Peach and Nectarine trees during certain seasons, and sometimes to Almond trees. It occurs in every part of the world where these trees are grown, and is most destructive in humid regions. Diseased leaves become fleshy, much puckered and twisted, or curled, and grow to a larger size than usual. Finally the upper surface of diseased leaves becomes covered with a delicate bloom. When a branch is once infected the fungus continues to grow in the tissues and passes into the leaf-buds formed each season. Leaf-curl is much worse in a cold, damp spring. In the case of diseased trees all the terminal shoots bearing infected tufts of leaves should be removed and burned. Diseased fallen leaves should also be collected and destroyed. By removing the diseased shoots one source of infection, namely, that arising from the spores formed on leaves originating from these diseased shoots, is removed. Besides, there is no advantage in retaining such contorted twigs on the tree. A second source of infection depends on the presence of spores that have passed the winter in the angle formed between leaf-buds and the branch on which they grow, inside the bud-scales, or in minute cracks in the bark. Such spores should be destroyed by spraying with Bordeaux mixture, spraying to commence when the buds show the very first indication of swelling. Give two sprayings at intervals of ten days. Do not spray after the leaf-buds begin to expand or the foliage will be destroyed.

DISEASED CURRANTS (*J. F. R., Oxford*).—The one leaf sent shows that the bush has had a severe attack of some form of fungus of a black warty nature such as we are unfamiliar with. Certainly we advise that you have all affected leaves gathered and burned at once. That may greatly check the spread of the fungus. It is impossible for us to tell you what local cause may be operating to produce this disease, whether of soil, of cold, of crowding, or other agent. You cannot well dress or spray the bushes now with any fungicide, but should do so as soon as the fruit is gathered. Get 1 lb. of sulphate of copper, crush it, and dissolve in 2 gallons of water in a wooden tub. Dissolve 1 lb. of fresh lime in a pail, and when clear add that to the other. Also dissolve in a little boiling water 1 lb. of soft soap, and add that and also 16 gallons of water. When it is clear well spray the bushes twice at intervals of a fortnight with an Abol syringe. In that way the fungus may be exterminated. Black Currants need no special treatment, as usually they are very hardy, but the pruning should consist of thinning out old branches to make room for new ones rather than of the form of hard pruning back of young shoots, usually applied to Red Currants. Possibly your Black Currants may be affected with the Currant mite. If so pick off and burn all burst buds which do not make proper shoots.

KAISERIN AUGUSTA VICTORIA AS A POT ROSE (*B. T. F.*).—This is a Hybrid Tea, and is one of the best of this valuable class for pot work. As it is a strong grower moderate pruning would suffice. If the plant is growing freely it will produce shoots 2 feet to 3 feet in length. These at pruning time may be left quite 1½ feet long, and more if preferred. Market growers of forced Roses plant this variety out in well-prepared borders, and for April flowering it is a glorious Rose, but is not one to grow for midwinter flowering. Another point to remember is that if a number of short-stemmed buds and blooms are desired the centre bud should be removed, and there will be quite three or four and more very useful blooms obtainable from each growth. Perle von Godesburg is a sport from the well-known Rose under notice. It will be useful when its golden colour becomes fixed. There is also a climbing form of Kaiserin Augusta Victoria which is a most excellent fast-growing Rose for a lofty

conservatory, the blooms being identical with the parent variety. All the Roses mentioned above require good heat to enable the grower to do them well. The night temperature should not fall below 55°.

NAMES OF PLANTS.—*V. V.*—The enclosed specimens were too poor to name with confidence, but we believe the following to be correct: 1. *Acer Pseudo-platanus purpureum*; 2. *A. palmatum sanguineum*; 3. *A. Lobellii*; 4. *Veronica Traversii*; 5. *Olearia Haastii*.—*R. C. Hazle*.—*Selenipedium* (*Cypripedium*) *Sedeni*.—*C. J. E.*—The yellow flower is *Verbascum phlomisoides*; the white one is *Cerastium tomentosum*.

NAME OF FRUIT.—*A. P. White*.—The Apple is known as Pigeon Apple, which is the same as Pigeon Rouge.

LEGAL POINTS.

ALLOTMENTS AND COTTAGE GARDENS (COMPENSATION FOR CROPS) ACT, 1887 (*Cottager*).—Upon the determination of the tenancy of a holding of not more than two acres in extent and cultivated as a garden or farm, the tenant is entitled, notwithstanding any agreement to the contrary, to obtain from the landlord compensation in money: (a) For crops, including fruit, growing upon the holding in the ordinary course of cultivation, and for fruit trees and fruit bushes growing thereon which have been planted by the tenant with the previous consent in writing of the landlord. (b) For labour expended upon and for manure applied to the holding since the taking of the last crop in anticipation of a future crop. (c) For any outbuildings, pig sties, fowl houses, or other structural improvements made by the tenant upon his holding with the written consent of his landlord. If the parties cannot agree upon the compensation the difference is to be settled by an arbitrator to be appointed by justices of the peace. This Act does not apply to a holding occupied by a seedsman for the purposes of his business.

RATEABILITY OF SPORTING RIGHTS (*Game-keeper*).—Where the land is let and the owner retains the sporting rights the gross and rateable values are estimated as if the sporting rights were not retained, and if the rateable value is thus increased the landlord must allow the occupier the proportion of the rate attributable to the sporting rights, unless the occupier has expressly agreed to pay the whole rate. Where land is let to one tenant and the sporting rights to another, the rating authority may rate either the owner of the land or the tenant of the sporting rights in respect of such rights. But the exemption contained in the Public Health Act, 1875—which, as amended by the Acts of 1890 and 1891, provides that the occupier of land in an urban sanitary or rural district used as arable, meadow, or pasture ground only, or as woodlands, market garden, nursery grounds, orchards, or allotments shall be assessed in respect thereof to the general district rate in the proportion of one-fourth part only of the net annual value—does not extend to sporting rights when let and severed from the land.

RIGHT TO PLANT FLOWERS ON A GRAVE (*Jobbing Gardener*).—As you do not send us particulars of your customers' rights in the graves which you have been ordered to decorate we are unable to advise you with any certainty. If the graves have been granted by licence or faculty the owners are *prima facie* entitled to decorate them with flowers. The grant of the exclusive right of interment in a private grave in perpetuity usually involves the right to use the surface for the erection of a monument or tombstone or for the cultivation of shrubs or flowers. If, however, the occupants of the graves have merely been buried as parishioners, and there has been no exclusive grant of the graves by faculty or licence, it is doubtful whether the relatives are entitled to decorate the graves with flowers without the permission of the rector. In the

absence of special circumstances the rector appears to be acting very unreasonably in declining to permit you to carry out your orders. We advise you to ask your customers to write courteous letters to the rector asking for his permission. If the graves have been granted by licence or faculty, the owners should point this out and that they are entitled to decorate them. Should the rector decline to give his consent, your customers should write to the bishop, and if he declines to interfere they should write to the newspapers. Happily, nowadays both clergy and laity are strongly opposed to acts of petty tyranny. If the graves are not situated in an ordinary churchyard, but in a burial ground controlled by a burial board, your customers should look at the grants of the graves for the purpose of ascertaining the nature of the rights which they purchased when the graves were acquired.

PRIZES FOR GARDENERS. JUNE.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
are offered for the best answers to the following questions.

This competition is open to all professional gardeners. Answers, which must be written on one side of the paper only, must reach this office by June 30. The envelopes must be marked "Competition." The Editor cannot undertake to return the manuscript of unsuccessful competitors.

- I.—Give lists for selection from of six early Peas, arranged in order of earliness, six mid-season Peas, and six late Peas, to cover a long season; also give heights of the varieties and suitable distances apart for sowing.
- II.—Give briefly details as to the best methods of soil preparation and manuring to secure a succession of Peas during hot weather.
- III.—Furnish briefly practical information as to the sowing and raising of Peas under glass for planting out on a warm border to secure early gatherings; also name a few suitable dwarf varieties.
- IV.—Describe the culture of Peas to be grown in pots, boxes, or on a house floor for gathering early under glass.
- V.—Name eighteen varieties of Potatoes for selection from for garden culture, classifying them as early, mid-season, and late; also mention general character of growth, and proper distances apart of the rows.
- VI.—Describe general requirements of Potatoes as to soil preparation, manuring, and times for planting.
- VII.—Give briefly particulars as to the culture of Potatoes in pots, boxes, or in frames, under glass, and name a few suitable varieties for such purpose.
- VIII.—Briefly describe the nature of the well-known Potato disease, how it may be counteracted, and what are the best agents for such purpose.

SOCIETIES.

ROYAL BOTANIC SOCIETY.

AN excellent exhibition was held by this society in their gardens at Regent's Park on Wednesday, Thursday, and Friday in last week. There were many exhibits, and a good attendance, despite the bad weather. This may be said to be the finest exhibition recently held by the Royal Botanic Society.

ROSES.

The group of Roses from Messrs. William Paul and Son, Waltham Cross, N., contained splendid pillar plants of Lady Gay, The Farquhar (very similar to Dorothy Perkins), Waltham Rambler, Sweetheart (with pink buds, changing to white), Rubin (bright rose-red), all good Ramblers, as well as fine bush plants of Spencer, Crimson Queen (deep crimson, very fragrant), Papa Lambert, and Lady Moyra Beaulieu. Flowering sprays of the new white Rambler Waltham Rambler cut from out of doors were full of blossom.

Messrs. Paul and Son, Cheshunt, showed an excellent group of Roses in various forms—pillar, bush, and standard—pillars of Dorothy Perkins, Crimson Rambler, Blush Rambler, Tea Rambler, standards of the new H.T. David Harum, Echel Brownlow, Duke of Edinburgh, bushes of sinica Anemone, Frau Karl Druschki, a seedling Musk, the Rev. A. Cheales, and Ulrich Brunner. Rosa microphylla, the double yellow Scotch, and Lady Battersea were also shown cut. A pot plant of Ulrich Brunner carried at least twelve perfect exhibiting blooms. Cut Rhododendrons were also well shown by Messrs. Paul.

Prince's Oxford Roses from Mr. G. Prince, Longworth, Berks, made a delightful exhibit. The blooms were cut and arranged in vases. Particularly fine were the new Roses Dean Hole (H.T., cream, flushed with pale rose), Etoile de France (H.T., crimson), and such as Anna Olivier, Souvenir d'un Ami, Comtesse de Nadailac, &c. There were bunches of Papillon, the Dawson Rose, Aglaia, Harrisoni, Mme. A. Carrière, and others. The H.T. Rainbow was finely shown, the red stripes showing clearly upon the pink ground.

CARNATIONS.

Messrs. William Cutbush and Son, Highgate, N., arranged a splendid group of Malmaison and other Carnations. In addition to the Carnations, the yellow Calla and Lobelia tenuior were well shown. This was a well-arranged and very attractive exhibit.

Carnations from Messrs. Hugh Low and Co., Enfield, comprised Malmaisons in some splendid varieties, Princess of Wales (salmon-pink) being very good, and cut blooms of tree varieties. In addition to their group of Carnations, Messrs. Hugh Low and Co. exhibited a large group of miscellaneous plants, as Nicotiana Sanderæ, Caladiums, Epacris (finely flowered), Ferns, &c.

Carnations, Malmaison and border sorts, were well shown by Messrs. Boyes and Co., Aylestone Nurseries, Leicester.

FRUIT.

Messrs. Thomas Rivers and Son, Sawbridgeworth, exhibited two large groups of pot fruit trees bearing splendid crops of fruit. Peaches, Vines, Nectarines, Plums, and Cherries were all well represented. Cardinal Nectarine, Stint Plum, and Royal George Peach were particularly good.

Mr. S. Mortimer, Rowledge, Farnham, Surrey, showed a good collection of Cucumbers, Tomatoes, and Melons. The new Cucumber Delicacy was well shown, and Melons The Countess and Hero of Lockinge were very good.

ORCHIDS.

An attractive group of Orchids was exhibited by H. T. Pitt, Esq. (gardener, Mr. Thurgood), Stamford Hill, N. Included were Lælio-Cattleya Martinetti, Anguloa Clowesi, Cattleyas in variety, Odontoglossum crispum in several good sorts, O. citrosum, and others.

Messrs. Hugh Low and Co., Enfield, showed Orchids in variety. Cattleya Mossiae was prominent, and Lælia tenebrosa, Lælio-Cattleya Latona, L.-C. Phoebe, L. purpurata, various Cypripediums, and Oncidium were included.

HARDY FLOWERS.

Hardy flowers in variety, such as Pyrethrums, Poppies, Lupins, Pæonies, Irises, and Gladioli, from Messrs. R. H. Bath, Limited, The Floral Farms, Wisbech, made a brilliant display. Pyrethrums were especially well represented.

Messrs. B. S. Williams and Son, Upper Holloway, N., exhibited a bright group of plants in flower, in which Oriental Poppies, Lupins, Stocks, Verbenas, Rose Crimson Rambler, and many more were included.

The Anemones from Messrs. Reamsbottom and Co., Geashill, King's County, Ireland, made a bright display. The purple, red, and salmon shades were the most distinct, although others—for instance, red, pink, white, and rose—were also shown.

Hardy flowers from Messrs. George Jackman and Son, Woking, comprised Lupins, Poppies, Thalictrums, Irises, Pyrethrums, and many more, making a very showy group.

Sweet Peas were well and extensively shown by Mr. Charles W. Breamore, Winchester. George Herbert, with very large, rich, rose-pink flowers, and Dora Breamore, creamy buff, were two of the best among many good ones. George Herbert is said to be the largest Sweet Pea grown. Nicotiana Sanderæ was also shown by Messrs. Breamore.

Messrs. Wallace and Co., Colchester, sent a representative collection of hardy flowers that comprised some good things. Lilies were represented by L. colchesterense, L. monadelphum, L. venustum macranthum, L. Hansonii, L. excelsum, and others. Irises, Pyrethrums, Poppies, Heucheras (of which some good hybrids were shown), Orchis

foliosa and others, and new varieties of Pentstemon glaber, rose and gentian blue coloured, were very attractive and full of flower.

Messrs. T. S. Ware, Limited, Feltham, arranged a very pretty group of hardy plants on the floor of one of the tents. Eremuri towered above Poppies, Pyrethrums, Aster alpinus, Pæonies, and others, making a pretty display. The cut blooms of tuberous Begonias and various hardy flowers were very bright.

Messrs. Barr and Sons, King Street, Covent Garden, exhibited a quaint and interesting lot of pigmy trees in pots in great variety, Acers, Oaks, Yews, &c. A scene from Yamato Mount, a charming miniature garden scene constructed by the famous garden architect Roko Saburou, was shown.

Messrs. Barr and Sons also exhibited Irises, Pyrethrums, Poppies, Gladioli, and other hardy flowers extensively. The Irises were very beautiful, and were represented by some lovely sorts in the Spanish and Flag Irises.

The group of hardy flowers from Mr. Amos Perry, Hardy Plant Farm, Winchmore Hill, N., made a brilliant show. Oriental Poppies, Lilies in variety, Irises, hardy Orchids, Tritomas, Aquilegias, Phlox pilosa (rose), and Phlox canadensis Perry's var. were all finely shown.

The Guildford Hardy Plant Nursery, Guildford, exhibited hardy flowers in variety, and a rockery most attractively planted with alpines. Weigela Eva Rathke, with dark red flowers, was one of many good plants in this group.

Annuals in pots were largely shown by Messrs. Watkins and Simpson, Tavistock Street, Covent Garden, Schizanthuses, Chrysanthemums, Marigolds, Poppies, Candytuft, new Sweet Peas Mrs. Alfred Watkins (pale pink), E. J. Castle (orange red), and many more were staged, and made an attractive group.

Sweet Peas in some variety were shown by Dr. Robert Boxall, M.D. (gardener, Mr. H. Sickelmore), Abinger Common, Surrey.

STOVE AND GREENHOUSE PLANTS.

Messrs. Sander and Sons, St. Albans, exhibited some beautiful hybrids of Nicotiana Sanderæ, the new ornamental Tobacco plant. Carmine, rose, purple, and white shades were shown.

Mr. John R. Box, West Wickham, exhibited Calceolarias in a variety of colours, the flowers testifying to the value of the strain.

The Gloxinias from Messrs. J. Peed and Son, West Norwood, S.E., were an excellent lot of plants, effectively arranged among Ferns, &c. Roupell Gem, with very large pink flowers, beautifully mottled, was one of the finest varieties.

Mr. R. Rasmussen, Eastville Nurseries, Waltham Cross, exhibited some very good Petunias. The purple variety was particularly good.

Messrs. Brown, Stanford, showed a group of various plants in flower. Verbenas, Heliotrope, Cactus Geraniums, Carnations, Roses, Marguerites, and Statice Bonduelli (yellow) were conspicuous.

Messrs. John Laing and Sons, Forest Hill, arranged a fine group of Caladiums, these handsome foliage plants being excellently shown.

Messrs. J. Laing and Sons, Forest Hill, S.E., exhibited a splendid group of tuberous Begonias in many good varieties, both double and single.

SHRUBS.

Mr. David Russell, Brentwood, Essex, exhibited a large collection of hardy shrubs and flowering plants in great variety. This exhibit filled one half of the long glass corridor. Acers were chiefly shown in this group, and they were in great variety.

Mr. L. R. Russell, Richmond, also largely exhibited Acers, Euonymus, Oaks, Planes, and many other hardy shrubs in variety.

EXHIBITS OUT OF DOORS.

Garden vases from Liberty and Co.; greenhouses from Crispin and Sons, Bristol; summer-houses from Riley, Herne Hill; tents from John Unite, Edgeware Road; motor, hand, and horse lawn mowers from T. Green and Son, Limited, Leeds, Ransomes, Sims, and Jefferies, Limited, Ipswich, and Coldwell, Finsbury; and teak garden seats from Castle, Baltic Wharf, Millbank, Westminster, were exhibited out of doors.

SUNDRIES.

Mr. H. M. Hamilton, 2, York Street, Covent Garden, exhibited a collection of ornamental wicker baskets; boilers were exhibited by Messrs. Hartley and Sugden, Halifax, and Kinnell and Co., Southwark Street, S.E.; tubs for shrubs by Messrs. Champion and Co., City Road; Four Oaks sundries in great variety by Mr. Sage, 71, Manor Road, Richmond (included was a new lawn and border sprayer); Val's Beetles by Val and Co., 16, Coleman Street, E.C.; table decorations by Mr. Williams, Oxford Road, Ealing; motor and other lawn mowers by Messrs. Shanks, Arbroath, N.B.; syringes, garden engines, &c., by Benton and Stone, Birmingham; fire appliances, garden engines, hose, &c., by Merryweather and Sons, Long Acre; lawn mowers by Lawrence and Co., Worship Street, E.C.; lawn boots by W. Pattison, Streatham; wooden fencing by the Economic Fencing Company, Limited, Billiter Street, E.C.; West Australian Apples and other products of that colony by the Agent-General; and insecticides, fertilisers, &c., by W. Herbert, Hop Exchange, S.E.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE usual monthly meeting of this association was held in the rooms, 5, St. Andrew Square, Edinburgh, on Tuesday, the 6th inst. There was a good attendance, presided over by Mr. J. W. M'Hattie, superintendent of Edinburgh Parks and Gardens, the president of the association. There were a number of excellent and seasonable exhibits on the table, and an award of merit was given to Mr.

William Smale, Blackford Park, for an unusually good specimen Streptocarpus. The paper for the evening was by Mr. E. L. Harrow, of the Edinburgh Royal Botanic Gardens, his subject being "Hardy Rhododendrons." Mr. Harrow gave an admirable and interesting paper, which treated of the Rhododendrons we have in cultivation from both historical and horticultural points of view. The paper was heartily received, and Mr. Harrow was accorded a warm vote of thanks.

HORTICULTURAL SOCIETIES' SCHEDULES.

ROYAL ULSTER AGRICULTURAL SOCIETY.—The flower show will be held in the society's premises Balmoral, Belfast, on Thursday and Friday, July 6 and 7. Competition is open to the United Kingdom. Entries close June 27. The best first prize is of £5 offered for seventy-two cut Roses, distinct varieties. The secretary is Mr. Kenneth Mackrae, 7, Donegal Square West, Belfast.

Stockport and District.—The eighteenth exhibition of Chrysanthemums, plants, fruit, and vegetables will be held in the Volunteer Armoury, Greek Street, Stockport, on Friday and Saturday, November 10 and 11. Entries close November 4. The hon. secretary is Mr. G. W. Stock, 85, Kimberley Street, Shaw Heath, Stockport.

Gresford and District Rose Society.—The twenty-sixth annual exhibition of cut Roses and other flowers will be held in the grounds of Gladwyn, Gresford (by kind permission of Mr. G. H. F. Robertson), on Friday, July 7. Mr. Robertson and Mr. Ellis Williams, 3, Wyresdale Place, Gresford, are the hon. secretaries.

Carnegie Dunfermline Trust.—The trustees have made arrangements for holding their second summer show of Roses, Pansies, herbaceous flowers, &c., in Dunfermline, and invite the co-operation of exhibitors and competitors in making it as successful as possible. The show will be held on Thursday and Friday, July 20 and 21, in Pittencreef Park. Prizes to the value of £200 are offered. Mr. John Hynd, Mid-Breidriggell, Dunfermline, is secretary. A first prize of £10 is offered for seventy-two cut Roses.

Nottinghamshire.—The annual exhibition of the Nottinghamshire Horticultural and Botanical Society will be held in the grounds of the Arboretum, Nottingham, on Wednesday and Thursday, July 12 and 13. Valuable money prizes are offered for groups of plants, specimen plants, cut flowers, fruit, and vegetables. Numerous special prizes are also offered. Mr. J. C. Mee, 26, Long Row, Nottingham, is the secretary.

Lewisia oppositifolia.—Under the name of Calandrinia Howell this rare plant is now being distributed by nurserymen. It first flowered at Kew in 1858, having been raised from seeds sent from the botanic garden of Harvard University, and it was figured at the time in the *Botanical Magazine*, at t. 7051, under the name of Calandrinia oppositifolia. In the later edition of Gray's "Flora of North America" this, as well as other so-called Calandrinias, was transferred to the genus *Lewisia*, to which it rightly belongs. The Kew plant lived for several years, but perished during one winter, probably through being kept too wet. Until the present time all efforts to procure the plant again have been unsuccessful, and it was a pleasant surprise when the plant received under the name of Calandrinia Howell flowered about the last week in May and proved to be *Lewisia oppositifolia*. It is a native of Oregon and California, and is usually found growing on bare and moist hillsides, with fleshy roots and lax rosettes of fleshy leaves. The pearly white flowers, each with ten petals and 2 inches in diameter, are borne, three to four, on stems about 4 inches long. It has not yet been tried outside, but it should prove quite as hardy as the other members of the genus *Lewisia*, provided that it is planted in a well-drained sunny position. Another rare and interesting species, *Lewisia leana* (Calandrinia) is now in flower in the rock garden. It is also a native of the same countries, being found on the Siskiyou Mountains. The fleshy leaves are produced in dense rosettes and are practically evergreen, while the much-branched panicles of flowers are somewhat numerous. Small in size when compared with other members of this genus, the flowers are very pretty, with about seven white petals streaked with red. This last species has proved harder than any of the others, and is altogether a charming little plant. With the well-known *L. rediviva*, which is in flower in the alpine house at the present time, and the broader-leaved *L. Tweedyi*, these comprise all the members of the genus in cultivation in this country, as *L. brachycalyx*, of which there were plants a few years ago, has disappeared. All the *Lewisias* like a warm position in sandy well-drained soil, with plenty of moisture when they are in active growth.—W. I.

OBITUARY.

DAVID STEWART THOMPSON.

WE regret to hear of the death of Mr. D. S. Thompson, one of the oldest and best-known nurserymen in the south of England. The headquarters of the firm of Thompson and Sons is at Wimbledon, and travellers on the London and South Western Railway must be familiar with the tree and shrub nurseries. Mr. D. S. Thompson, who died at Wimbledon on the 6th inst., was eighty-nine years old.

*. * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

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ROSE PROSPECTS FOR 1905.

MR. MAWLEY, hon. secretary of the National Rose Society, writes as follows on the Rose prospects for 1905:

In reply to the enquiry, What are likely to be the prospects for the coming Rose season? judging from the present appearance of the Roses in my own garden, I should say remarkably good. For the foliage is clean and healthy, there are virtually no blind shoots and no green fly, while the buds are well formed and present a most promising appearance. The only drawback is here and there a few spots of mildew, for which the other varieties are, I believe, entirely indebted to that fertile source of this pest, Her Majesty, standards of which were in a weak moment planted up and down the beds throughout my collection. Of course, as is usual at this season, the first blooms of the year are unsatisfactory, which is entirely owing to the buds from which they came having made their appearance before their proper time, and so having had to battle with the chilling effects of cold winds and night frosts. It may be necessary to explain here that the whole of my exhibition Roses except the Teas were replanted in February and March last, and consequently when that dreadful frost of the night of the 22nd and 23rd ult. came the buds were not nearly as forward as they otherwise would have been. On the other hand, the generally healthy appearance of those plants and the equally promising appearance of the Teas, which had not been moved, bear out my contention that, given favourable weather conditions from this time, their prospects cannot be regarded otherwise than remarkably good. Then, again, the decorative Roses, of which I have a large number in the form of dwarf plants, standards, climbers, &c., promise equally well. I notice, too, both in the gardens at a higher and lower level in this district that the Roses are quite as promising.

As I live in a cold district among the Hertfordshire hills, it is to be hoped that from many other Rose gardens and Rose nurseries more favourably situated in other parts of the country may be able to report equally well of their prospects. On the other hand, I cannot but fear that there are many other localities where the damage done to Rose plants has been very considerable. This I gather from the accounts which have reached me from various quarters. Indeed, it is seldom that the effects of a frost so late in May are so far-reaching as they appear to have been in this instance. Some of my correspondents express themselves as dismayed at the outlook, and wonder where the

Roses are to come from in time for the exhibition season, so great has been the destruction wrought. Others complain of crowded flower-buds, the effect of a severe chill temporary arresting the growth of the plants. Then in another case many of the buds are described as discoloured in the centre when cut open, while the buds coming from the more matured growths are not affected in the same way. But perhaps the most common and distinctive feature of the injuries received has taken the form of Rose-buds with green centres, which are singularly numerous this year. When such crippling frosts as these occur we hear little about the Roses growing in those gardens which have escaped injury, but a great deal about those which have suffered more or less severely. So that it is to be hoped that, taking the United Kingdom as a whole, the prospects may be far more favourable than some of the individual reports received may lead us to expect.

In two reports which have reached me since the frost occurred, one from the east and the other from the north of England, Roses are stated to have escaped injury altogether, and to be looking as promising as anyone could wish. All the correspondents referred to above are well-known rosarians, and, with one exception, exhibitors. In hearing from exhibitors one knows that the worst is being told, for when the small number of shoots they leave on each plant are cut down or otherwise injured, fresh growths have to be made before other exhibition blooms can be hoped for. Moreover, in order to obtain those splendid specimens it is necessary that the plants should have received no severe or prolonged check, otherwise the flowers will be either small or ill-formed. Whereas in ordinary gardens, where such perfection is not sought for, and where more shoots are left after pruning, the plants more readily recover, and if the damage be not great the blooming period may be delayed somewhat, but the harvest will be as bountiful and the general effect as beautiful as one could wish for. For the recuperative power of the Rose under such conditions is often truly surprising.

Exhibitors who are overtaken during the spring by a severe frost for the first time are at a loss how best to act under the circumstances. The first idea is that the plants should be cut back and allowed to break again, but it is a mistaken one, because by doing this a still further check is given them than the one they had already received from the frost. Whereas if the plants are left to recover in their own way, the new growths will be stronger and be made in a shorter time than if the pruning knife were again applied to them. Of course, if the injuries are slight it may be advisable instead to

cut away or shorten back the damaged shoots here and there.

After such a rebuff as Roses have received lately in so many parts of the country, it cannot be expected that the general display of blooms will equal that of last year, which was an exceptionally favourable season throughout. But provided the weather from this time be warm and otherwise favourable, the general quality of the exhibition blooms will not, I think, be found to fall far short of the average. For outside the frost-bitten area there must be numbers of gardens from which blooms will be gathered fit to grace any exhibition stand. So that at many Rose shows, and more particularly at the National Rose Society's great show in the Royal Botanic Gardens on July 6, which will draw its supplies from all parts of the kingdom, the high standard of culture for which our British rosarians are so deservedly famous is certain to be maintained, although here and there inferior stands may be seen to remind us of the great weather difficulties under which they have been produced, while the decorative Roses are certain to equal those of any previous year.

But, as I said before, everything depends on the climatic conditions of the next three weeks, which is all-powerful for good or ill, as it is about the warmest period in the whole year. The rainfall, at all events in the southern half of England, has been as plentiful as could be desired. All that is required now is a spell of really warm and forcing weather to bring on the Roses in the uninjured localities, and at the same time to help those in the damaged gardens to recuperate themselves after the ill usage they have received.

ROSES ON THEIR OWN ROOTS.

We have received the following interesting letters on this subject:

I am not surprised that your correspondent "H." (page 329) should feel somewhat discouraged at the remarks from a correspondent in Lincoln respecting Roses on their own roots, but if those who have been more successful would give an opinion of their experience, it is quite possible that "H." would not feel quite so uneasy.

Soil and climate may perhaps have something to do with the short lives of own root Roses in Lincoln, otherwise I should feel inclined to disagree with the statement that Teas, Hybrid Teas, and Hybrid Perpetuals are useless on their own roots. For many years we have raised hundreds of Roses on their own roots, principally Hybrid Teas and Hybrid Perpetuals, and they are certainly most satisfactory. At the present time we have several large beds of Roses that have all been raised in this way. They are strong, healthy plants, and produce an abundance

of flowers. Some of these plants are at least twelve years old, and others about the garden are much older. The natural soil here is a sandy loam with gravel subsoil, and Roses on their own roots do much better than grafted plants, which either die out in a few years or become a nuisance by continually throwing up suckers. When making new plantations or beds of Roses we always trench in a good dressing of clay and manure, which is kept at the bottom of the trench, where it helps to hold the moisture, which is of great importance on this kind of soil. Of the Hybrid Perpetuals nearly all strike very freely, although in some seasons they do better than others. Here are the names of a few that do remarkably well: Duke of Edinburgh, Duke of Teck, Duke of Connaught, Duke of Wellington, A. K. Williams, Abel Carrière, Harry Turner, Victor Hugo, Catherine Soupert, Grand Mogul, Lord Bacon, Margaret Dickson, Ulrich Brunner, Heinrich Schultheis, Camille Bernardin, Paul Neron, Baroness Rothschild, Merveille de Lyon, Mavourneen, Clio, Mrs. Sharman Crawford, and Mme. Gabriel Luizet. These strike freely, and make good plants the second year. The Hybrid Teas also strike well, and some of the older varieties make good plants in a very short time, especially Caroline Testout, La France, Augustine Guinoisseau, Lady Mary Fitzwilliam, Kaiserin Augusta Victoria, Gloire Lyonnaise, and Viscountess Folkestone. These are excellent for bedding, and do splendidly on their own roots. A great many of the newer sorts we have not been able to try at present, as it is sometimes difficult to get wood of sufficient length for cuttings. Teas as a rule do well on their own roots, but, of course, they are not so vigorous in growth as grafted plants; but, nevertheless, they produce plenty of flowers, and grow more evenly than the grafted plants do. We have found Sylph, Francisca Kruger, Dr. Grill, Mme. Lambard, Mme. Cochet, Anna Olivier, Ernest Metz, Bridesmaid, Mme. Hoste, Mme. Rubens, S. A. Prince, and several others do exceedingly well. The Hybrid Teas, Hybrid Perpetuals, and climbing Roses are all struck in the open ground on a north border in the kitchen garden. The soil is improved by adding leaf-mould and sharp grit. Cuttings are taken about the end of November or a little later when the wood is thoroughly ripe; it is quite useless to insert unripened wood. Only the strongest and hardest should be used for cuttings. The cutting is prepared by removing every leaf and making a slanting cut from the centre of an eye, which is much preferable to a cut straight across. The cutting should be about 15 inches long and placed at least 9 inches in the ground. It is almost useless to attempt to strike Tea Roses in the open border. They are much better struck in July in a frame on a hot bed. The fact is that Tea Roses generally make their strongest growth in the autumn, and it is very seldom that these growths are sufficiently ripened for making into cuttings. Cuttings raised in the open air should remain in the same position for two seasons. The first pruning should be to cut them down within 1 inch or 2 inches of the ground. The result is that two or three strong shoots are thrown up and a good plant formed.

There are many points of interest in Mr. Sidney Spalding's notes, which I hope will be taken up. W. H. SCOTT.

The Hermitage Gardens, Twyford, Berks.

On page 329 of THE GARDEN for the 3rd inst., a correspondent asks for opinions concerning the advisability of planting own-root Roses in preference to budded plants. It seems a pity that anyone should be discouraged through having read of others' failures. Whatever would become of us if we all did this I do not know, for there are sure to be failures and successes, and generally the latter are the outcome of the former, for what real gardener who, having failed with anything, would not collect his thoughts and find out the cause and remedy, and act according to

the lessons taught him in the future. As is the case with most good things, Roses fail sometimes. It may be through inferior soil or situation, or through not being planted properly, but certainly, so far as my own experience goes, there are less failures with own-root Roses than budded plants, and they require much less attention. The reason is not far to seek. Except for the distribution of new varieties, I fail to see why budding should be carried out by our Rose growers to the extent it is. I admit it is a quicker process, and so far as standards are concerned budding must be done, but should not the roots of any plants have the first consideration, and most especially the queen of flowers? Let anyone take, for example, half-a-dozen plants of Victor Hugo Rose two years old, and on their own roots, and compare the latter with the roots of a similar number bought from a nursery and budded on something else. One has only to visit such gardens as Malwood, where the late Sir William Harcourt propagated Roses by the thousand, all on their own roots, from cuttings taken in September or October each year. There are hundreds of plants to be seen at Malwood to-day, not weaklings, but huge specimens 10 feet high and 5 feet and 6 feet in diameter. If your correspondent "H." were to see them he would not hesitate on so important a matter. Such grand old Roses as Mme. A. Carrière, Bouquet d'Or, A. K. Williams, Mme. Watteville, Marie van Houtte, the Gloire de Dijon family, Ulrich Brunner, the Harrisoni Briar, and a host of others are represented on their own roots at Malwood, all having attained an enormous size, while nearly half an acre is devoted to China Roses, also on their own roots. The soil at Malwood is excellent for Roses, and the aspect is also in their favour.

GEORGE BURROWS.

Avon Castle Gardens, Ringwood.

I see a Lincoln correspondent (page 279) of THE GARDEN begins by stating that Roses do not do on their own roots, and afterwards puzzles me by giving a considerable list of those that do. If he would take the trouble to tell us the kinds that will not do I might be able to try them, and perhaps offer some evidence in the matter.

ANNA OLIVIER.

I have been following with interest the correspondence in THE GARDEN in connexion with own-root Roses. For four or five years now I have been making experiments in this direction in the belief that in our ever dry, sandy soil, own-root Roses would stand a better chance than those budded on the Briar. I am afraid that the small experience I have had at present does not go for much, but I think that such as it is it may be of interest to some of your correspondents. I ought to say to begin with that all my experiments have been with Roses struck in the open ground from cuttings taken in August and September. My first attempts were with La France and Ulrich Brunner, and the results were very different. La France has always flowered freely enough, but the blooms are poor and the stems not vigorous enough to support them erect. Ulrich Brunner, on the other hand, is exceptionally vigorous grown as a pillar Rose, and produces every year a great quantity of fine blooms. The parent plant, budded on the Briar, cannot compare with it in vigour, freedom, or quality of blooms. Augustine Guinoisseau as a one year old produced some fine blooms last autumn, and made satisfactory growth, and this year it promises extremely well. It is just coming into bloom. I do not find here any of the weakness that characterises the own-root La France. Two or three plants of William Allen Richardson struck in September, 1903, and shifted last autumn, are beginning to make good growth, whilst a number of Turner's Crimson Rambler, three years old, are fine healthy plants and will soon be in flower. Next year I hope to see the result of Dorothy Perkins and some other wichurianas, and also

several Hybrid Teas struck last autumn. At present, of course, they remain where struck, but that they intend to bloom this season is abundantly apparent. Altogether the limited experience I have enjoyed so far is most encouraging, and I hope to enlarge it considerably in the future.

THOMAS F. NEIGHBOUR.

Outlands Park, Surrey.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

June 26.—Isle of Wight Rose Show.

June 27.—Oxford Commemoration Rose Show.

June 28.—Farningham Rose Show; Southampton (two days); Richmond (Surrey) Horticultural Show.

June 29.—Canterbury, Reading, and Walton-on-Thames Rose Shows; Colchester Flower Show.

The fruit crop will certainly not be a heavy one in this county. Pears are extremely scarce, and it is doubtful whether Plums are half a crop. Apples are the most satisfactory, but here again the crop is not a large one. In our own garden Apples promise well. I cannot recommend too highly the new late variety King Edward VII., of which we had some fine fruit in good condition in April, and it is as invaluable as Newton Wonder at that season.—A. R. GOODWIN, *Worcestershire.*

A dry May.—The rainfall in this district has been extremely sparse since March. Here are the figures as registered at our local meteorological station: March, 2.50 inches; April, 1.55 inches; May, '36 inches; total, 4.41 inches. Up to the time of writing (June 10) hardly any rain has fallen here this month, and, with all one's plants spoiling for want of a thoroughly good soaking, it was rather disturbing to see an article in to-day's *Daily Telegraph* entitled "Dripping June." If the writer of that article could only have seen the disconsolate way in which the thrushes and blackbirds are hopping across our parched lawns he would have altered his heading.—A. R. GOODWIN, *Kidderminster.*

Annual Festival of the Gardeners' Royal Benevolent Institution.—The annual festival of this famous gardening charity was held on Friday, the 16th inst., in the Whitehall Rooms, Hotel Metropole. The Duke of Westminster presided over a large company, and a sum of over £2,000 was raised. A report is given on another page.

Presentation to Mr. Herbert King.—An interesting presentation was recently made to Mr. Herbert King, of the firm of Messrs. F. R. King and Co., Coggeshall, Essex, by the employés, on the occasion of his marriage. Nearly 100 were present on the occasion of the presentation, which was made in one of the large seed warehouses at Coggeshall. The gift consisted of a Queen Anne pattern tea and coffee service.

Apple Gascoigne's Seedling.—From time to time eulogistic remarks about this Apple have appeared in THE GARDEN. Five years ago we planted a bush tree of it on Crab stock, and have never had a solitary blossom upon it. Last autumn we lifted it in order to check growth and try and throw it into fruiting, and we intend to follow this plan each autumn until our object is attained. At the Worcestershire County Council Experimental Garden this Apple (a large bush tree on Crab) produced one fruit last year—the first in ten years! Should this note catch Mr. A. H. Pearson's eye perhaps he will be good enough to tell us how this Apple behaves on the Paradise stock. I feel certain that it must be a shy cropper, because such a richly coloured Apple would have become popular with the market men long ago unless it had some serious drawback.—A. R. GOODWIN.

"Fruit Preserving."—This is the title of a booklet of some twenty pages, which gives plain and concise instructions as to the best methods of preserving fruits and vegetables. The author, Mr. J. E. Cook, has given much valuable information in a small space, and his remarks will doubtless be read with interest by many. This booklet may be had, post free, for 1½d. from the Pitman Health Food Company, Birmingham.

Garden Primroses.—Miss L. A. Phillips, 1, Lyefield Lawn, Charlton Kings, Cheltenham, writes: "It may interest you to hear of one of the finest shows of Polyanthus Primroses in this neighbourhood. I saved seed from some of Carter's Royal Primroses. For size, colour, and variety they are unsurpassed. The enormous trusses, the size, and marking of blooms—shades of yellow, orange, crimson, scarlet, rose, pink, and white—make a lovely show."

Fasciated Daffodils.—I see in THE GARDEN of the 27th ult. a note on Daffodil blooms with eight and nine segments. In case it may be of interest to you, I enclose two photographs of flowers with the same variation. The one of *Narcissus Victoria* I found here in 1904, but I failed to find any specimen with more than the usual six segments from the same bulbs this year. The Golden Spur flowers were gathered here this season.—G. H. N., *Adderbury, near Banbury*.

Royal Horticultural Society.—The schedules for the special summer, autumn, and winter shows of this society have just been published. The society's great summer show, which for the last few years has been held at Holland Park, will this year be held in the grounds of the Royal Military Hospital, Chelsea, on Tuesday, Wednesday, and Thursday, July 11, 12, and 13, the arrangements for which will be similar in all respects to those in force at the society's great shows at the Temple, which have now been so celebrated for many years. The Chelsea site is very centrally situated, and easily accessible from all parts of London, both north and south of the Thames. It is ten minutes' walk from Victoria Station, and less than five minutes from Grosvenor Road and Sloane Square. On September 26 and 27 the National Rose Society's show of autumn Roses will be held, in conjunction with the Royal Horticultural Society, in the latter's beautiful new exhibition hall in Vincent Square. Here, too, on October 10, 11, and 12 the society's twelfth great annual show of British-grown fruit will take place, and a fortnight later (on October 24) a vegetable show will be held. Separate sections in all these three shows are provided for nurserymen and for amateurs. On December 5 and 6 the society will hold its third show of Colonial-grown fruit and vegetables. In conjunction with this there will be an exhibition of home-bottled and preserved fruits and vegetables, which must all have been grown and preserved in the British Islands. Copies of the schedule may be obtained on application to the secretary, Royal Horticultural Society, Vincent Square, S.W.

Some pretty Deutzias.—As an outdoor shrub we do not properly recognise the beauty of *Deutzia discolor purpurascens*, which, with one or two hybrids obtained from it, formed the most attractive feature among the Deutzias during a visit recently paid to Kew. The great merit of this species is that it is little affected by the frosts and cutting winds of spring, which play such havoc with some of them that they are seen at their best only under glass. *Deutzia discolor purpurascens* is a native of Yunnan, and was, I believe, first introduced into this country through French gardens. It forms a freely branching shrub, clothed with rough, ovate leaves, and toothed at the edge. The flowers, which are borne in compact corymbs, are individually about three-quarters of an inch across, with the white petals prettily suffused with rosy purple. The buds are quite deeply coloured. A bush of this in the collection at Kew was laden

with its pretty blossoms, as also were *D. discolor grandiflora* and *D. gracilis campanulata*. The first named, *D. discolor grandiflora*, a hybrid with *D. gracilis*, is not far removed from *purpurascens*, though traces of *gracilis* are observable if the plant is closely looked into, while *D. gracilis campanulata* may be described as a good deal in the same way, but with white blossoms. At all events, the three forms appeared to be quite safe in inclement weather.—T.

Garden Roses at Kew.—Probably many persons visiting Kew Gardens just now will fail to see the remarkable mass of what may almost be described as wild Roses, yet of the recognised garden character, growing in a dell near the pagoda. As an illustration of the way in which free-growing or rambling Roses can be grown in semi-wild form, this dell is worth going a long way to see. All the best free-growing Roses, double and single, seem to be here, and all apparently have grown luxuriantly, in some cases having developed into huge masses. Considerable as is the depth and height of bank on either side thus planted, one could wish for more. What beauty Roses thus growing give as compared with what is too commonly seen elsewhere is there illustrated, because at one end of the dell a large group of common Laurels, worthless and uninteresting things, still exists. Old tree-stumps and stems are freely used for material



STOCK ALL THE YEAR ROUND.

over which Rose growth can ramble. Certainly those who love wild Rose gardening should see this Kew dell at once.—A. D.

A new Stock.—The Stock represented by the accompanying illustration is called All the Year Round, presumably in reference to its continuous flowering. It is especially suitable for pot culture, and has been well shown on several occasions in pots by the raiser, Mr. S. Mortimer, Rowledge, Farnham, Surrey. The flowers are large, white, and double. The great value of this new Stock consists in its long season of flower; it is, in fact, rarely out of bloom when grown in pots. The illustration represents it in the Royal Botanic Gardens, Regent's Park.

Cytisus Beanii.—This very pretty *Cytisus* originated at Kew a few years ago, and was named after Mr. Bean, the assistant curator, whose name is well known to all people interested in hardy trees and shrubs. The plant, it is supposed, is a chance hybrid between the charming little prostrate-growing species, *C. Ardoini*, from the Maritime Alps, and the upright-growing *C. purgans*, from South-west Europe. Seeds of *C. Ardoini* were sown, and one plant, quite different from the rest of the seedlings, is the one now called *C. Beanii*. In habit it is dwarf, and the branches are more or less prostrate, very similar to those of *C. kewense*. The wood is more like that of *C. purgans* than the other parent, while the leaves are simple and linear as in *C. purgans*, while those of *C. Ardoini* are ternate and very hairy, the lobes being ovate. The flowers, which are borne one, two, or three

together from the leaf-axils, are rather larger than those of *C. purgans*, a pretty shade of yellow in colour, and they are borne less closely together than those of the parents. The largest specimen at Kew is 9 inches in height and nearly 2 feet across, every branch being laden with golden blossoms. For growing on rockwork it bids fair to become an excellent shrub, while growing in a bed at Kew it makes a pretty picture. In a cold frame cuttings root readily, and no difficulty has been found in its cultivation.—W. DALLIMORE.

The Garden City, which is gradually rising at Letchworth, within an hour's journey of King's Cross, was visited on the 31st ult. by members of the Worshipful Company of Gardeners. Already about 1,000 persons are settled on the estate, which covers 3,800 acres. The whole principle of the scheme, as the directors of the city explained to their visitors, is to get manufacturers and others there with their work-people. In order to attain this end the rents of the cottages have been fixed as low as 5s. a week, ample accommodation being provided on the most approved plans. Considerable progress has been made with the city during the eighteen months that the company has had possession of the estate. A pleasant feature of the proceedings during the afternoon was the naming by Mr. Osman, Deputy Master of the Gardeners' Company, of an open space to be used as a park and known as Howard Park, in honour of the founder of the city. When asked what the visitors thought of the city, Mr. Osman said they were extremely pleased with it. They felt that the city was bound to succeed. In the evening the directors of the Garden City Company were the guests of the Gardeners' Company at a dinner given in Town. Mr. Mervyn E. Macartney gave a lecture on "Garden Architecture," illustrated by lantern slides.

Plants flowering early.—Owing, I suppose, to the extreme drought, many things are flowering here at least five weeks earlier than during the last fifteen years. *Cistus lusitanicus* opened a good many flowers on May 15; the usual time is after June 20. Before the end of May *Cistus crispus*, *formosus*, *purpureus*, *undulatus*, *florentinus*, and seedlings of *salvifolius* were in full flower. *Crinum Powellii* has never before flowered here till nearly the end of August; this year a fine spike opened on the 5th inst. *Linum arboreum* has been in flower ever since the middle of May. During the third week of April *Salvia Grahami* began to flower, and three large bushes are now as completely covered with flowers as they usually are in October. The colour of the flowers also is unusually fine. They are growing among boulders and gravel on the hottest and driest of sloping terraces. *Solanum crispum* has been very fine in the same position. For many years past hybrids between *Papaver rupifragum* and *P. orientale* have occurred in this garden, and this season the brightest-coloured one I have yet seen has flowered. Lastly, *Tropæolum speciosum* is already in flower on a north wall. *Verbascum densiflorum* has been flowering magnificently since May 22.—E. C. BUXTON, *Coed Derw, Bethesda-y-Coed*.

RECENT PLANT PORTRAITS.

THE *Botanical Magazine* for June contains portraits of

Nepenthes Rajah.—Native of Borneo. This has the largest pitcher and is the handsomest member of its curious family. It was discovered by Sir Hugh Low in 1851, and collected for Messrs. Veitch by Mr. F. W. Burbidge in 1881. It has, however, proved almost impossible to cultivate, and only one plant of it is now in cultivation in the Royal Botanic Garden at Glasnevin, near Dublin, whence the specimen here figured was sent to Kew by Mr. F. W. Moore. It is found to thrive best in a cool Orchid house,

and the pitchers here represented are about half the size that they reach in a wild state in Borneo.

Erica lusitanica.—Native of Western Europe. This is a very pretty winter-flowering Heath, producing small flowers of an ornamental shade of rosy blush very freely.

Rhabdanthus Solandri.—Native of New Zealand. This is the shrubby Gesneriad of New Zealand, and is an extremely interesting and free-blooming plant, producing, mostly in pairs at the axils of the leaves, pretty flowers of a deep orange shade, evenly striped with brown, and resembling in shape those of a small *Tydaea*. It was introduced into cultivation by Messrs. Lemoine of Nancy.

Lycaste Locusta.—Native of Peru. This is a curious green-flowered Orchid of little beauty, and of merely botanical interest.

Bowkeria gerardiana.—Native of Natal. This is a very curious and ornamental-flowering shrub, with relatively large pure white flowers somewhat resembling in shape those of a *Calceolaria*, and produced in lax bunches from the axils of the leaves. It is hardy in the Isle of Wight, and the specimen figured came from the garden of Mrs. Gwyther Williams, where it is grown under the name of *B. triphylla*, from the foliage being produced in triplets up the stems and branches.

The *Revue de l'Horticulture Belge* for June contains a plate of eleven flowers of *Cyclamen persicum*, all differing from one another more or less in shade of colour or in form of flower, and all raised from one pod of seed.

W. E. GUMBLETON.

WATER GARDENING.

SMALL PONDS AND POOLS.

(Continued.)

IF there is or must be a small island it is far better to plant it with an Alder and a group of Silver Birch. The rounded forms of the *Rhododendrons* add painfully to the rounded dumpiness of the little island. It is better to group them on the shore and to plant the island with something of upright form that will give beautiful reflection in the water, or to let it be covered with non-woody vegetation.

The common *Rhododendron ponticum*, with one or two of bold growth that have white flowers, such as "Minnie," and some of the tall, free lilac-whites such as *Album grandiflorum* and *Album elegans*, will make the best possible combination. If with these there are some groups of Silver Birch, and the whole shows against a background of Spruce Fir, it will probably be as noble a use of these grand flowers as could be combined in a half wild place.

Here, even more than in a garden, where also it is often seen and always to be regretted, an unconsidered mixture of the various colours of the many *Rhododendron* hybrids should be carefully avoided; moreover, the foliage in individuals differs so much in character, that in grouping kinds together this should be considered as well as the colour of the bloom. There is perfect safety in the group as advised above, its constituents all having the handsome dark green long-shaped leaves that is so good an attribute of *R. ponticum* and its nearest relations.

The ponderous masses of *Rhododendrons* near water are much improved by good groupings of Silver Birches, an association always to be advised; indeed, a shallow valley of rather damp peaty soil leading to water, where the wild Birches are thoroughly at home, is the very place for *Rhododendrons*. When both come down to the water's edge, and the dark evergreen masses with the graceful silver-backed stems are reflected in the still water, it shows about as good a picture of wild gardening with shrub and tree as may well be, and one that is scarcely less beautiful in winter than it is in summer.

Of other trees and bushes of the water-side, Willows and Poplars are the most important. The White Willow (*Salix alba*) becomes a good-sized tree. There are occasionally places where the Weeping Willow can be planted with good effect, perhaps for preference at the edge of small pools. But much more generally useful are the Willows or Osiers with highly-coloured bark, especially the Cardinal and the Golden Osiers. In winter they quite light up the water-side landscape with their cheerful colouring, which is all the more brilliant if they are cut down every year; the young rods bearing the brighter bark. Nearly as bright in winter is the Red Dogwood, also willing to grow near water.

The Poplars are the largest of the deciduous trees for the river or pond side or anywhere in damp ground. Grand great trees they are—the White, the Grey, the Black and also the Aspen Poplar; but grandest of all and the most pictorial is the tall upright Lombardy Poplar.

Sometimes nearly a straight line of these tall trees will occur near a river, and often have they been so planted with the very best effect; the strangely clear contrasting line of straight tall tree and level water being acutely accentuated when the one is reflected in the other.



ILlicium ANISATUM. (Much reduced.)

As previously mentioned, the Spruce and its varieties are damp-loving things. The handsome American Hemlock Spruce is one of the finest, and a grand tree for the water-side or for any damp ground.

Quinces also love a damp place, and as true water-side bushes are not many in number they should be more freely planted, for not only do they give a harvest of excellent fruit, but they are beautiful bushes or small trees. Moreover, they are good at all times of the year—in flower, in fruit, and when the leaves are gone, for then the remarkable grace of the little tree can best be seen. For this use the old English Quince, with the smooth roundish fruits, is by far the best, the varieties that bear the largest Pear-shaped fruit being not nearly so graceful in habit.

The native Water Elder (*Viburnum Opulus*) is a grand bush or small tree, and should be largely planted by the water-side. Where garden meets water, is one of the many and one of the best of places for its derivative, the Guelder Rose. Among foreign hardy bushes one above all is precious for the water-side, the Snowdrop Tree (*Halesia tetraptera*) from North America. I have grown it both as bush and tree; and in every shape, and for all garden uses, have found it one of the very best of deciduous flowering shrubs.

The pond water-garden naturally leads to the bog garden; indeed, the tendency of the valley

pond to silt up at its upper end, where the stream that feeds it lets fall the lighter particles it has held suspended and leaves the heavier ones that it has driven along its bed, points to this region of boggy deposit, narrowing to the true stream, as the proper place to grow many bog plants.

(To be continued.)

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 3, Southampton Street, Strand, W.C.

THE ANISEED TREE.

Mr. Leney, Saltwood, Hythe, sends a flowering shoot of the Aniseed Tree, *Illicium anisatum* (syn. *I. religiosum*). This tree is held sacred by the Japanese, who form wreaths of it with which to decorate the tombs of their deceased friends; they also burn the bark as incense before their deities. The odorous leaves are reported to possess poisonous properties. This is a greenhouse shrub in most parts of the country, but with Mr. Leney it grows well outdoors.

FLOWERS FROM EXETER.

Lady Acland sends from Killerton, Exeter, flowers of *Rehmannia angulata* from outdoors. In the south-west it promises to be a useful addition to our hardy plants. A small plant put out last summer in the rock garden in light rich soil has now spread into a mass over 3 feet across; it is now full of flowering shoots. Lady Acland also mentions that *Veronica hulkeana* has been very fine, but is now past its best, and that *Dianthus neglectus* is very attractive just now in the rock garden. The *Rehmannia* was very fine, strong leafy stems heavy with the purplish *Gloxinia*-like flowers. We were pleased to see so sturdy a growth.

FLOWERS FROM MESSRS. VEITCH AND SONS OF EXETER.

Messrs. Veitch sends several interesting flowers for the table—*Halesia diptera*, an exceptionally beautiful tree with pure white bell-shaped flowers; the lovely *Abutilon vitifolium album*; several flowering shoots, showing its wonderful freedom, of *Solanum crispum*; the deep crimson-coloured *Weigela Eva Rathke*, and the pure white *W. hortensis nivea*. These represent a very interesting collection of flowering shrubs.

WHITE PRIMULA JAPONICA.

Mr. Hart sends from Howth, County Dublin, flowers of a very good white variety of *Primula japonica*. This *Primula* has been very beautiful this year, and in its many colourings gives a fresh charm to the border and woodland.

FLOWERS FROM SALTWOOD.

Mr. Alfred Leney sends from Saltwood, Kent, flowers of three interesting plants: *Cianthus puniceus magnificus*, which, as the name suggests, is a very fine variety of the "Parrots'-bill," *Illicium anisatum*, with its quiet creamy flowers, and a mauve *Azalea*—or *Rhododendron*, as the *Azaleas* are now called—*A. ledifolium narcissiflorum*.

THE FLOWER GARDEN.

THE MARIPOSA LILIES.

THE family to which *Calochortus Gunnisoni* belongs is a most delightful one, and much has been written in previous pages of THE GARDEN about the requirements necessary for their successful culture. Except, however, in the more favoured and warmer places in this country, they are seldom at home in the open, but require a frame or other protection against the heavy rains experienced during the autumn and winter. To succeed with *Calochorti* a light, rich soil is essential, combined with thorough drainage, and, given these conditions, one may expect a fair measure of success. Situation also is important, and for choice a warm, south border should be chosen in which to plant the bulbs. It is generally considered that the best time for this is in the late autumn, afterwards placing lights over them to keep off the rain. The subject of the accompanying illustration belongs to the *Nuttallii* group of Mariposa Tulips, and is common in the Rocky Mountains from Nebraska to New Mexico. It produces erect stems about 18 inches high, each producing several flowers. These are quite as variable in colour as those of the well-known *C. venustus*, ranging from buff and white to lilac and pink. Of large size, about 4 inches across, with broad, rounded segments, zoned and bearded at the base, it is one of the finest members of an attractive genus. Many of these beautiful plants, however, are subject to a disease to which they succumb, and thus cause great disappointment by their failure to bloom. When, however, they become better understood this defect may be surmounted, and it may be possible to have them flowering as freely as Crocuses. The *Calochorti* lend themselves to culture in pans, and a number of species form quite a feature in the alpine house at Kew now, at the beginning of June. About ten bulbs were placed in each 7-inch pan, the soil used being a light sandy loam to which was added a proportion of leaf-soil. During the winter the pans were kept in a cold frame, transferred to a warm, south border in early spring, and plunged to the rims in ashes. Widely distributed as the many members of this genus are, it should be possible to select some that would succeed in any garden.

W. IRVING.

MARSH PLANTS.

FOR the margins of streams or lakes there are many moisture-loving and showy plants available. Many are desirable for the beauty of their foliage. Among these are *Rodgersia podophylla* (known as the Bronze Leaf), *Gunnera scabra*, *Rheum palmatum tanguticum*, *Arundo Donax*, the British Reed (*Phragmites communis*), and several of the *Polygonums*; *P. sachalinense* is a fast-growing plant. Of those useful for their flowers a group of *Primula japonica* will form a glowing feature. Of the Globe Flowers *Trollius europæus* var. *Orange Globe* is the best. *Caltha palustris* fl.-pl., *Iris lævigata* (Japanese Iris), *Lychnis chalcædonica* pl., *Lythrum Salicaria roseum* (Loosestrife), a late-flowering plant, *Thalictrum flavum glaucum*, with graceful feathery plumes, and double Cuckoo Pink (*Cardamine pratensis plena*); these should always be planted in batches. Others that can be recommended for wet places are *Parnassia caroliniana*, *Mimulus lutea*, *Saxifraga Sibthorpii*, and some



A BEAUTIFUL MARIPOSA LILY (*CALOCHORTUS GUNNISONI*).

of the Orchis. Many of the *Spiræas* are indispensable, such as *S. Ulmaria* fl.-pl., *S. palmata elegans*, and *S. gigantea*, which, growing to a good height, has a noble appearance. *Tradescantia virginica*, *Osmunda regalis*, and many Bamboos should find a place.

A. J. H.

THE KITCHEN GARDEN.

FIELD CULTURE OF MUSHROOMS.

WHERE the conditions are favourable to the culture of Mushrooms in pastures, this phase of gardening is attended with much pleasure, little labour, and a fair chance of considerable profit. Everything turns on the conditions and quality of the land being conducive to success. This secured, the rest is highly satisfactory. The first and prime necessity to secure is some old pasture land with a good depth of soil, say, 1½ feet to 2 feet, not too heavy or too light, and free from the shade of too many trees.

Mushrooms will not grow on poor pastures resting on shallow light soils. It is useless to attempt their growth on such land. Presuming the land to be suitable, I would advise the beginner in the work to embark on it cautiously at first, in order to gain confidence by experience on a limited and inexpensive scale. By taking this course much disappointment is saved as well as valuable knowledge acquired, which may afterwards be turned to profitable account on a larger scale. I then propose to treat of a square pole of land only (30½ square yards). This is an easily understood quantity, and may, if desired, be duplicated as many times over as the planter may desire.

The best time to plant the spawn is towards the end of April, by which time the land will be gradually getting warmer, and the subsequent warm months of May, June, and July will afford the best conditions possible for the spawn to run and permeate the surrounding soil for some considerable distance, resulting, if all has gone on well, at the end of August and through September in an abundant crop of Mushrooms. A square hole 12 inches wide and as many inches deep should be dug out in every square yard, making

thirty holes to the pole. In taking the turf off these holes, care should be taken to do the work neatly, as they will again be wanted to cover the holes after the spawn has been planted. (It should be cut 2 inches thick only.) The Mushroom consists very largely of nitrogen, and the material for its growth should have this agent well represented in its composition. For this purpose nothing is so good as horse manure, and especially that from Corn-fed horses. Therefore sufficient of this should be collected in fresh condition to fill up the holes to within 2½ inches of the surface. The manure should be collected every morning and placed thinly on the floor of an open shed or some other place where it can be protected from rain, but otherwise exposed to the weather.

It should be turned over every three or four days until there is a body large enough of it (say a cartload, more or less, depending on the extent of the land to be laid down), and this should be collected within the space of ten days or a fortnight, or it becomes stale, and its value depreciated. It collecting the manure the short litter which always accompanies it should be included to the extent of a quarter of its bulk, but not any of the longer straw. The manure should now be thrown together into a heap, and allowed to remain so for four or five days, until it becomes well heated, opening it well out at the end of this time for the rankest of the steam to escape, putting it together in the same way in the course of three or four hours afterwards for it to heat in like manner again, to be again opened out at the end of four more days. By this time sufficient rank heat will have escaped; that which is left will be comparatively sweet, and will be required in the manure when placed in the holes to stimulate the spawn into activity. The manure when placed in the holes should be moderately dry, well pressed in by ramming, and the holes filled to within 2½ inches of the surface.

THE SPAWN.—Much depends on the quality of the spawn, and no trouble should be spared in procuring the best. It should not be more than twelve months old, and the brick of spawn should be full of dormant, healthy mycelium; that is to say, the thread-like particles running through the brick of hair-like proportions, and not swelled out in size, or appearing of a whitish colour. This will be an indication that the spawn has been by some means excited into premature growth, which materially discounts its value. But usually manufacturers and dealers in spawn, for their own credit's sake, are careful to only deal in the best. It is usually sold by the bushel, this consisting of so many bricks, and the price varies according to

the quantity purchased. The spawn should be inserted in the manure as soon as it is placed in the holes. A brick of spawn should be divided into six parts, one piece to be placed in the centre of the manure in each hole. It should be placed in sideways, not flat, and fixed perfectly tight and deep enough to be half an inch below the surface of the manure. When the spawn is fixed, half an inch of soil should be placed over the manure and well pressed down, afterwards placing the turf over the holes and ramming it. A dressing of soil a quarter of an inch in thickness should be placed over these turves, in order to prevent the sun drying it up and to help to make it grow faster. The slight heat from the manure and the gradually increasing power of the sun will give the requisite warmth to cause the spawn to spread out into the soil in many directions, and the warm showers and rather cooler temperature of late summer will furnish the best conditions for the production of good and continuous crops.

THE AFTER MANAGEMENT consists in a liberal dressing of stable manure to the land each winter and of agricultural salt each spring, at the rate of half a ton to the acre. As long as the conditions are favourable, spawn will go on reproducing itself in the same land for an indefinite period. Hot summers, with copious showers at the end of July and August, are the most favourable seasons for this crop. Wet and cold summers are the reverse.

OWEN THOMAS.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

ROYAL HORTICULTURAL SOCIETY'S FRUIT COMMITTEE'S AWARDS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—A suggestion has recently been made by the chairman of the above committee, that the council and committee should take into consideration the desirability of testing all new fruits and vegetables recommended for awards by the committee at Wisley before the latter are confirmed by the council. It has been arranged for the subject to be discussed by the fruit committee at their meeting on July 18. Presumably the reason for recommending this change is that it is thought by the council that too many awards have been given in the past, and some of them to fruits and vegetables undeserving of the honour. The subject, no doubt, is well worthy of the consideration of the society, and the

council is to be congratulated for initiating the discussion, and also for taking the members of the committee into their confidence, and it is to be hoped that a good number of the latter will attend, as the question is an important one, involving on the one side the protection of the public against the possibility of an inferior article receiving the society's commendation, and on the other hand safeguarding the interest and property of those hybridisers and raisers of new fruits and vegetables who have done so much of late years to improve those valuable products of the garden and orchard, and that in a great measure under the inspiration and encouragement of the Royal Horticultural Society. The committee, also, will be more or less on its trial, and it behoves the members to see to it that its authority and usefulness are in no way diminished. It is, I think, an open question whether the matter is so grave as some would make it out to be, but in any case a discussion on the subject cannot but do good, as it has occupied the minds of horticulturists throughout the country for many years.

It would, I think, help the committee very much to come to a right conclusion if the council were to supply each member as early as possible with a list of new fruits and vegetables exhibited, say, during the past three years, showing how many had received awards and certificates, and also indicating those kinds which had proved undeserving of such recognition. This would show the extent of the trouble, and need only be for the private information of members of the committee.

ONLOOKER.

PERSIAN CYCLAMENS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I herewith send you a photograph of a group of Cyclamens which won the certificate of merit at York Spring Show (Ancient Society of York Florists). One of the plants in the photograph was carrying over a hundred flowers, and some of the others between fifty and sixty.

G. W. RICHARDSON.

(Head gardener to Mrs. Whitehead.)

The Gardens, Deighton Grove, York.

THE MOURNING IRIS (I. SUSIANA).

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have the pleasure of sending you two photographs of a group of Iris susiana (Oncocyclus) now in bloom in my rock garden here. From six tubers planted last autumn I have already had five blooms, and the bud on the last plant should be open in a few days. The six plants average 2 feet in height, and are all very vigorous in appearance. These Irises are growing on a warm and sheltered ledge facing due south, about 2 feet from the ground, so that the drainage is perfect. They are sheltered on the north, east, and west by the arrangement of the rockwork, and also by a Laurel hedge and a small plantation of Scotch Firs at a convenient distance. They have had no artificial protection whatever, except a covering of Bracken for a short time during stormy weather in the late autumn. A large proportion of bone-meal was incorporated with the soil, and the whole was made as firm as possible prior to planting. On the same ledge Iris Korolkowi and Iris Lorteti are growing strongly, though they are not yet in bloom.

THOMAS F. NEIGHBOUR.

Redruth, Otlands Park, Surrey.

BRYANTHUS ERECTUS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In THE GARDEN of the 27th ult. your correspondent "W. D." in his interesting note on Bryanthus, enquires about B. erectus and where it may be met with in good condition. In the Edinburgh Botanic Gardens it may be seen growing luxuriantly in the rock garden, where there is a large group, and at the west end of the terrace, where it occupies a circular bed, and in



PERSIAN CYCLAMENS AT THE YORK SPRING SHOW.

either position the plants are open to all exposures. Here it is an extremely hardy plant, and the group at the terrace is in the vicinity of a collection of *Callunas*, the foliage of which during some springs gets cut by frost, whereas both *B. erectus* and *B. empetrifolius* pass through unscathed. As showing how luxuriantly they grow, *B. erectus* here attains a height of 10 inches, while *B. empetrifolius* reaches a height of at least 15 inches. It may be thought that the plants are "leggy" in appearance, but the opposite is the case, as they are well furnished with foliage to the ground level. *B. taxifolius* is a good plant for the rock garden, and makes a compact growth of about 6 inches in height. W. SMITH.

Royal Botanic Gardens, Edinburgh.

RHUBARB HOBDAYS GIANT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—“A. H.” in a footnote to his reference to this Rhubarb, insinuates that the members of the Royal Horticultural Society's fruit committee, who declined to vote for an award of merit for it, knew nothing about Rhubarbs. A more unworthy remark respecting the committee was never published. The chief reason advanced for the making of the award was the length of the stems shown. But the stems were the product of partial forcing, and plenty of other Rhubarbs would give quite as long a stem if allowed to do so. The Rhubarb is no earlier and not so richly coloured as several others in commerce. Also length of stem is no criterion as to number of stems a plant will produce. The only fair test of the value of a Rhubarb is to be found in an open air trial, such as is now being conducted at Wisley. As one who has no pecuniary interest whatever in products or awards I have laboured to make such trials or tests imperative before awards of merit are made. A. D.

SPRING DISAPPOINTMENTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It is by no means unusual for the gardener to experience disappointments in spring, for at that season so much depends on the weather. The month of May is one in which the hopes and prospects of the gardener hang in the balance, for while trees are making willing progress in leaf, blossom, and fruit, late and severe frosts, such as that experienced on the 23rd and 24th ult., cause reverses that no weather nor cultural skill can restore. Trees generally, both on the walls and in the open air, flowered with their accustomed freedom, and gave good hopes of a bounteous crop in due season. The cold, biting winds and low night temperature were in some degree as harmful as frost itself, for it not only “holds up” the tender growth, but it also is so inviting to insect life in its many forms. Peach trees on the walls, though dressed in winter with caustic alkalies, have been subject to the persistent attack of aphides, so that repeated applications of insecticides to hold them in check have been necessary. Alternate pickings of leaves infested with blister and aphides kept the trees more or less bare, and this is bound to materially influence the summer crop. Plums flowered exceedingly well considering the heavy crops of last year, but a survey made recently reveals a scanty result from such an excellent promise. Some trees have enough, but a greater proportion are cropping very thinly. Pears recall similar remarks, for both wall and open air trees are variable, some being thin, others more thickly set and healthy. Undressed trees in the open are much infested with maggot, while others seem to be quite free. Thus the abundant and apparently healthy prospects of a few weeks since are slowly but surely accumulating further disappointments. It is early to judge of Apples, but these and Cherries seem more hopeful. Slugs, mice, the various aphides, weevils, Turnip fly, leaf blister, mildew, and maggots all serve to hinder in their turn, and frost then follows to



A VALUABLE EARLY PÆONY (*P. ANOMALA*).

complete the destruction. With only a rainfall of a quarter of an inch for the month many plants and crops are suffering. Potatoes on sheltered borders will be small, even where they escaped frost, and the earliest Strawberries are not apparently much benefited by occasional irrigation. Gooseberries are an exception, and seem not to mind either drought or cold. At present they are the most satisfactory of our crops. W. STRUGNELL.

NOTES ON LILIES.

LILIES AT THE TEMPLE SHOW.

WE always look to Messrs. Wallace's group at the Temple Show as likely to contain a representative selection of Lilies, and this year, as usual, many beautiful kinds were noticed.

Particularly fine were the stately *L. testaceum*, whose slender wand-like stems were crowned with masses of nankeen coloured blossoms; *L. longiflorum*, the silvery trumpets of which are indispensable for floral decorations of all kinds; *L. rubellum*, whose advent a few years ago was hailed with delight, as it was regarded as one likely to give us the beauties of *L. Krameri* without the capricious behaviour of that well-known kind, although the anticipations have been scarcely realised; *L. elegans Orange Queen* and *L. elegans venustum macranthum*, two fine forms of a beautiful and variable Lily, both with orange or apricot-tinted blossoms; *L. Martagon album* and the dark-tinted *L. Martagon Catanae*, in which the heavy smell of the Turk's Cap group is too much for confined spaces; *L. tenuifolium*, an exceedingly graceful Lily, whose bright red recurring blossoms are delicately poised on slender stems. Unlike many of the Martagon group, this flowers well the first season after potting, but it does not adapt itself to cultivation the second year, hence constant importations from its northern home are necessary in order to keep up the supply. Another of the Turk's Cap group is *L. Hansonii*, remarkable for the thick wax-like texture of its yellow flowers. *L. pomponium verum*, with rich crimson blossoms, a good Lily for loamy soils, which remark also applies to *L. szovitzianum*, which greatly resents disturbance. *L. japonicum Cochesteri*, with creamy trumpets with chocolate suffusion on the exterior, was very noticeable; and *L. Henryi*,

often referred to as the Orange Speciosum, was seen several times. Of all the Lilies introduced within the last quarter of a century none have more readily adapted themselves to the British climate than this. Other Lilies, such as *L. pyrenaicum* and some of the early members of the upright-flowered section, were noted in different parts of the show. The plants of *L. Brownii* in Messrs. Veitch's group were, I should say, the finest examples of this Lily that have ever been shown. In what may be regarded as purely decorative groups Lilies whose bulbs had been treated by the refrigerating process showed up bravely. Most notable were the white and coloured forms of *L. speciosum* and *L. tigrinum*, some examples of this last being unusually strong. H. P.

NOTES ON HARDY PLANTS.

A HANDSOME PÆONY.

AMONG the many species belonging to this ornamental genus, the jagged-leaved Siberian Pæony (*P. anomala*) represented in the accompanying illustration is undoubtedly one of the finest of those flowering during the late May. Of tall, erect habit, growing nearly 3 feet high, its richly coloured, intense purple flowers are borne in great profusion, and make an effective display of colour which may be seen a long way off. It is a native of Siberia, and has been in cultivation since the year 1788, but is not so often seen in gardens as the more popular *P. albiflora* and its varieties. *P. anomala*, however, flowers much earlier than the latter, and in this fact lies its claim for a place in the garden, where, either as a border plant or in a large group in the wild garden, it forms a striking object. Flowering at the same time is a closely allied species, *P. tenuifolia*, from the south of Russia. It is remarkable for the narrowly divided leaves and smaller but more intensely coloured flowers. In cultivation before *P. anomala*, it is ornamental even when not in flower, from the feathery lightness of the foliage. Intermediate between the two

species already mentioned is another handsome plant, which goes by the name of *P. hybrida*. It is said to have originated in the St. Petersburg Botanic Garden, where it was found by Pallas growing near its two parents. It is more closely allied to *P. anomala*, with similar leaves and the intense purple flowers of *P. tenuifolia*. As in the case of all the other herbaceous *Pæonies*, these respond to rich culture, but, like the rest, are subject to the same disease which affects the stem at the ground level, causing it to rot and wither away. This is sometimes due to the excessive use of manure in top-dressing, but it may be kept in check by the liberal use of lime or frequent sprayings of a solution of permanganate of potash. W. IRVING.

AMERICAN CARNATIONS.

It is impossible to get away from the fact that the American varieties of recent introduction are more valuable for decoration than the ordinary English varieties. I find English raisers have fully recognised their value, and have already raised some good varieties of the same type. The earlier varieties that we had from America were much despised on account of the fringed petals, yet when we got further improvements this prejudice was overcome, the long stiff stems and full sweet-scented flowers, with a deep calyx which rarely bursts, being qualities which no prejudice could overcome; and at the present time the American varieties take the lead and command the best prices in our English markets. It is only with an opportunity of seeing them as they are grown for market that one can fully recognise their value.

I have seen it stated that the variety Mrs. T. W. Lawson does not open satisfactorily in winter, but this has not been my experience, and those growing for market have had splendid blooms all through the past and previous winter. It was this variety which made such an impression on English growers, but this was not seen in its best form until some time after it was imported, and it has improved rather than otherwise with those who grow Carnations well. Ethel Crocker, which I grew from newly-imported stock, did not come good at first, but later on we had fine blooms and strong growth, and secured an award of merit for it from the Royal Horticultural Society. I may add that *Royalty* appears to be identical with the above. G. H. Crane, though very free and a clear scarlet, was not full enough, and is now superseded by larger-flowered sorts.

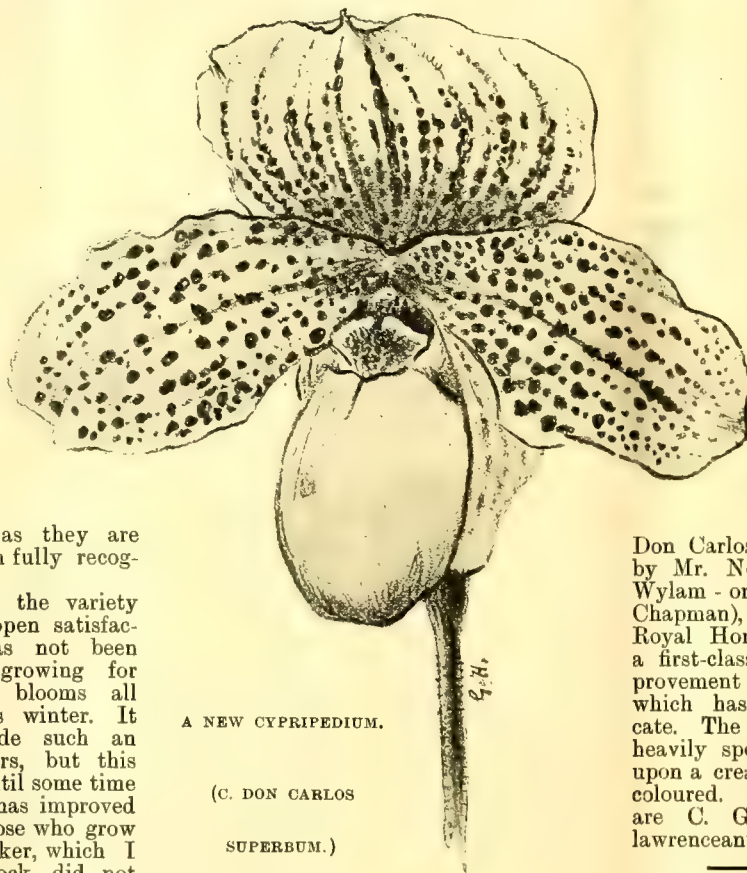
Of scarlets the best now grown are *Adonis* and *Flamingo*; both of these have received awards of merit from the Royal Horticultural Society, but I find some growers do not favour *Flamingo*, as it is rather slow in opening its flowers in winter. There are a good many pink varieties of the deeper shades; I think *Floriana* is one of the best—the flowers

are large and very sweet scented. We have heard and seen so much of *Enchantress* that it needs no further recommendation; it is certainly one of the best, yet for florists' work a deeper shade of colour would be even more acceptable. Pollen from a scarlet on to this as the seed parent ought to give something good. *Alpine Glow* is another good blush pink. *Melba*, or *Mme. Melba*, is an older variety, which still remains a favourite, especially for early spring flowering. The deep crimsons are plentiful, and it is difficult to say which should take first place. The President, as shown at the Royal Horticultural Hall some time ago, when it gained an award of merit, was very fine. Governor Roosevelt and Harry Fenn are good, and we have seen some very fine blooms of *Harlowarden*, and *General Maceo* may be regarded as a desirable variety. The pure white varieties are now getting numerous, and there may be some difference of opinion regarding which is the best. In the market

in some classes at the great Chicago Convention. We are told that we cannot flower Carnations in winter so well as they do in America, but I think this is more imaginary than real; I find much depends upon cultural treatment. The first thing necessary is to start with strong, healthy stock, and it is only by the planting-out system a strong stock can be maintained. There is no doubt that Carnations can be grown well in pots, but they must have good soil, pots of sufficient size, and careful attention. Allowing them to get too dry in the pots while they are in bud is sure to be attended with fatal results. It is for this reason that the planting out on benches may be recommended. It is much easier to keep the roots in good condition where they can spread freely, and there is far less trouble in watering.

The various troubles in the way of rust, spot, and other fungoid diseases may be kept in check by the frequent use of sulphur and lime. Soot-water is also destructive to some enemies, such as green fly, &c., but the soot-water should not come in contact with the lime while it is quite fresh.

Temperature and ventilation are important factors. Too much heat and not sufficient air often cause much mischief. No Carnations can be forced into flower; sun, light, air, and a moderate temperature will secure the best results. A. H.



A NEW CYPRIPEDIUM.

(C. DON CARLOS

SUPERBUM.)

NEW AND RARE PLANTS.

A NEW CYPRIPEDIUM.

A new and very fine variety of the hybrid *Cypripedium* of *Don Carlos* called *superbum* was exhibited by Mr. Norman C. Cookson, Oakwood, Wylam-on-Tyne (gardener, Mr. H. J. Chapman), at a recent meeting of the Royal Horticultural Society, and received a first-class certificate. It is a great improvement upon *Cypripedium Don Carlos*, which has also been awarded a certificate. The dorsal sepals and the petals are heavily spotted with dark crimson-purple upon a cream ground; the pouch is cream coloured. The parents of this hybrid are *C. Godefroyæ leucochilum* and *C. lawrenceanum*.

COLOURED PLATE.

PLATE 1276.

RHODODENDRON FULGENS.

WRITING, more than fifty years ago, about this *Rhododendron* as it is seen on the Sikkim Himalayas at altitudes of 12,000 feet to 14,000 feet, Sir Joseph Hooker described it as "one of the richest ornaments of those inhospitable regions." Yet to-day it is still one of the rarest of the Himalayan species in cultivation, and even

Norway has been very good, also *Lilian Bond*. *Glacier*, the first white from America that I knew, has quite gone out of favour. *Lady Bountiful*, which took first prize for 100 blooms of white at the recent Chicago Convention, is also a favourite in this country. The white *Lawson* is highly spoken of, but I have not yet seen this. *Fiancée*, pink, is another good thing promised, which is already on sale in this country. My *Maryland*, *Mikado*, and *Robert Craig* are other good things promised, upon which we shall no doubt be able to pass an opinion a little later, and there are also other good things promised, yet some of those we have already seen took first honours



RHODODENDRON FULGENS.

in the gardens of Cornwall and South Wales it is not often to be seen of great size.

Rhododendron fulgens is one of the few genuinely red-flowered species in cultivation; red, that is, without any admixture of purple in the colouring. I can only call to mind four others—*arboreum* in some of its forms, *barbatum*, *Hookeri*, and *Thomsoni*. Of all these *R. fulgens* is probably the hardiest. At Kew (in a sheltered spot it is true) it has grown and flowered for twenty years to my knowledge without suffering the least injury from the several severe winters experienced during that period. Flowering as it does in March—and it provides the richest colour to be seen out of doors at that season—its flowers are, of course, liable to injury by frost, but it is worth the risk.

It has oblong leaves 3 inches to 5 inches long, covered beneath with a warm brown-red felt. The flowers are borne in close compact trusses, each flower blood-red in colour, bell-shaped, and $1\frac{1}{2}$ inches in diameter, each truss about 3 inches across. The young growths are also very pretty as they burst from the bud on account of the thin crimson bracts that accompany them. The species is apparently one of the middle-sized ones, scarcely of tree-form like some, but growing 8 feet or 10 feet, probably more, in height.

Among the new Chinese species introduced by Messrs. Veitch there are probably some equally as striking as *R. fulgens* in colour, but it will be some years before we can hope to see them in their true character. Of the Himalayan species really hardy in the London district, *R. fulgens* is the most striking.

W. J. B.

JAPANESE IRISES.

ONE of the most beautiful of summer flowers is the Japanese Iris, *I. lævigata*, which has given a fresh joy to the water garden through the many

colourings which the broad flattish petals display. The colours embrace shades of pink, rose, and purple, and there are also flowers of the purest white, while some are speckled and blotched with colour in such a way as to lose in effect when grouped by pond, lake, or streamside. The Japanese Irises are very charming in the Wisley garden of the Royal Horticultural Society, as shown in the illus-

tration, and it is possible to obtain quick effects, as the plants are very easily grown. They are quite happy in ordinary soil, but prefer a good loam. They must not be shaded, but exposed to the full sun, and the roots should not be actually in the water. It is possible to grow them in quite small gardens if a moist spot can be found for the plants.



JAPANESE IRISES IN THE ROYAL HORTICULTURAL SOCIETY'S GARDEN AT WISLEY, SURREY.

GARDENING FOR BEGINNERS.

SIMPLE HINTS.

INCREASING THE PINK. — Pinks are such favourite garden flowers that it is almost impossible to have too many of them. They are easily increased by cuttings, or "pipings" as they are technically termed. Towards the end of June is the best time to commence propagating them. Cut off the young shoots from the parent plant just

for layering, and the cuttings from such plants lack the robustness of growth of those plants which can be given more room to strike out.

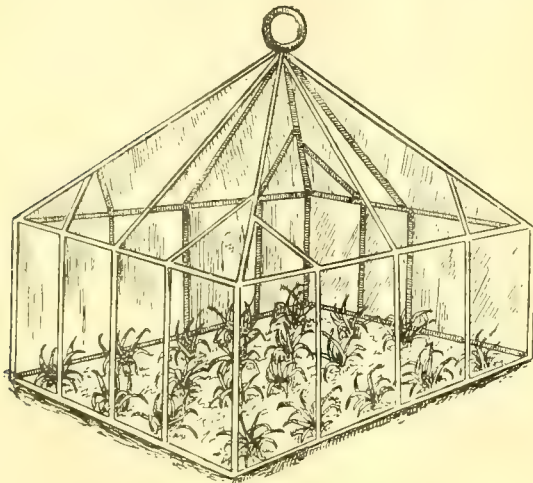
Flowers for Cutting.—It is often convenient to have plants from which flowers may be cut without reducing the bloom on beds or borders in conspicuous positions. Not that cutting flowers from a plant does it any harm; on the contrary, the more the flowers are cut from most things the more the production is increased. This is specially true of most of the best cutting things, such as Sweet Peas, *Coreopsis grandiflora*, &c., and Roses may be cut from very freely at all times.

Tufted Pansies.—Violas, or Tufted Pansies, are nowadays so numerous that it is not a question of which to grow, but of which not to grow. And here the beginner needs to be careful. Unless his Violas keep a tufted habit, and flower more or less from May till October, he will be disappointed. The choice of varieties, then, is all-important. One that we can confidently recommend, both for beautiful flowers and freedom as well as compact growth, is *The Mearns*. The flower is large, of rich purple colouring, fading to a lighter shade towards the top. It has a bright yellow centre, which contrasts effectively with the purple petals. Another very attractive variety, with all the necessary good qualities, is *Kitty Bell*, of pale mauve colouring, a most attractive shade, with small yellow eye. It is a most free-flowering variety.

Some Weigelas (Bush Honeysuckles).—Very charming these shrubs are now, and the flowers have some value for cutting. They are not particular about soil provided it is well broken up and made deep, as it should be for all shrubs and plants. A group of half-a-dozen varieties is exceedingly interesting. The following are distinct: *W. Govenowegenei* (what a name!), *W. Isolinea*, *W. van Houttei*, *Lemoinei Lavalley*, *W. hortensis nivea*, and *Amabilis*.

Lilies for Suburban Gardens.—In a letter before us a correspondent suggests that a short article bearing on the above subject would be useful, and we deal briefly with the chief items suggested in the letter referred to, viz., (1) Time of planting. (2) Whether Lilies should remain undisturbed. (3) Aspect. (4) Kind of soil required. Taking these in the order given, there is only one answer to the first, and it is this—that all Lilies should be planted or transplanted when in the dormant stage. The season varies naturally with the different species or types. The old white garden Lily (*Lilium candidum*) should be replanted in August or quite early in September, though a large number who plant this beautiful Lily may not think of doing so at this apparently early date. Many hundreds of bulbs each year are planted some weeks later than the time given. It is by no means necessary to transplant any other kind at the time named for this beautiful old *Madonna Lily*. A better general guide for the planter would be this—to endeavour to obtain, between

October and the end of February, sound plump bulbs, and having obtained them plant them without delay. Let it be understood quite clearly that we prefer October to February. (2) Should Lilies remain undisturbed when planted? Yes, generally. (3) Aspect. Western in a large degree, and particularly for the *auratum* and *speciosum* groups. Where shade or partial shade exists in gardens other exposures may prove suitable, but we would not plant on a north, north-east, or east border from choice. (4) Soil. Here no general rule can be applied. The varieties of *L. auratum* prefer sandy loam or peat and loam; *pardalinum*, *superbum*, and *canadense* moist or even boggy peat; *testaceum*, *Martagon*, *speciosum*, *chalcidonicum*, and others strong loam, and so forth; the white *Madonna Lily* prefers a light sandy soil generally and with the bulbs quite near the surface. This kind also objects to very rich soils, while all the forms of *speciosum* prefer rich soil above and below the bulbs. In small gardens where the question of aspect, if rigidly enforced, would debar many from growing some of the best of garden Lilies, it will be found best to plant the clumps of Lilies near to evergreen shrubs, so that the latter may protect the young growth of the Lilies in spring time. Hollies, Laurels, and *Rhododendrons* are excellent for this purpose. Nor should the value of the bolder perennials be overlooked in this connexion; indeed, we know of some fine masses of Lilies growing stronger and taller each year in near association with the herbaceous *Pæonies* and *Montbretias*; while, on the other hand, a distant belt of trees, a high wall, or the continued shade of the dwelling-house during the hottest part of the day could all be brought into use, as it were, and made to serve some good end. Of the kinds most likely to succeed we would name first of all *Lilium candidum* and *L. candidum speciosum*, the latter a very fine form of this pure white kind, and readily distinguished from it by its dark purple and green stems, as well as the more massive flowers. A warm position in unmanured soil, bulbs not to be planted more than 4 inches deep. Other good kinds are *testaceum*, also known as *excelsum*. Some bulbs of this, six in number, planted about twenty months since, now average four fine stems to each bulb. *L. pyrenaicum*, *L. croceum*, *L. umbellatum* in variety, *L. chalcidonicum*, *L. tigrinum* in variety, and *L. pomponium verum* are other important kinds. All of these may be planted 5 inches deep in well-tilled soil, preferably sandy loam with which old manure has been incorporated. A most important section of Lilies is the group known as *L. speciosum*, which embraces many beautiful forms with white, rose, rosy red, and crimson flowers. This perhaps of all Lilies requires the richest



PINK "PIPINGS" UNDER HANDLIGHT.

below a joint; that is to say, that part of the stem from which the leaves are produced. The stem is slightly enlarged where it is clasped by the leaves, and that part is known as the joint. To make a cutting it is necessary simply to cut off the shoot just below the leaves, and remove these. Make sure that the knife is quite sharp, otherwise the cut will not be a clean one. Instead of making cuttings of the Pink shoots in this way, the latter may, by a sharp, upward pull, be snatched out as it were with a basal joint attached. This obviates the necessity of cutting below the joint. Place a frame or handlight in a fairly shady place, and make a bed about 4 inches deep of sandy soil, first placing some cinders or crocks underneath for drainage. If there is no frame or handlight available, a box will do if it is covered with glass. Shade must be given from sun. Little or no water will be required until the cuttings begin to root.

The Value and Interest of Reserve Beds.—Even small gardens should have a bed or two set apart for testing new plants where they could always be under one's eye, and where the soil could easily be made to suit anything we want to plant. In large places a plot of ground could be given up to this work and laid out in 4-foot beds with narrow pathways between, covered with 1 inch or 2 inches of ashes to enable the cultivator to move among his plants at any time without disarranging the surface. To the experimentalist the plot would be most interesting. Choice seedlings might be planted or raised from seed. We have found the advantage of sowing all choice seeds, which generally come to us in small quantities, in boxes in a cold frame, and it is convenient to have a bed of suitable size to transplant to when ready. Then these reserved beds are just the places for planting stock plants of Carnations, Pinks, Pentstemons, or anything we wish to propagate from either layers or cuttings. As a rule, beds in conspicuous positions are planted thickly for effect. There is no room



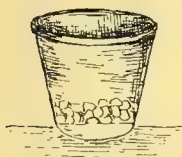
BOX WITH PINK "PIPINGS" OR CUTTINGS.

soil. It produces great masses of roots below the bulbs when these are healthy and a dense mat of stem roots above the bulb. In well drained and deep soil we would plant any of this section 6 inches to 8 inches deep, having dug the soil to 2 feet deep and buried old manure 12 inches deep. Above the bulbs and near the surface some rich soil should be given with manure to support the stem roots. No other Lily forms so great a mass of stem roots as the members of this section, though *L. auratum* and its varieties produce large numbers. The latter should be planted without manure and in a shady spot among shrubs. Two choice Lilies that should be in every garden are *Lilium Henryi* and *L. sulphureum*, the last-named with huge trumpet-like blossoms 6 inches long. Both kinds should be planted 6 inches deep in rich sandy loam. If the beginner in Lily culture will first take the foregoing and grow them well he will assuredly have a desire for others still more choice.

Pruning Deciduous Flowering Shrubs.—If pruning is required do it immediately after flowering, and do it in a conservative spirit, weeding out the long shoots, not hacking everything as one would cut a hedge. If a little is done annually after flowering the shrubs will always be in good condition. Scarlet and other Thorns, Laburnums, &c., may be helped when young, but afterwards not much pruning is required.

Value of Temporary Shade.—Though the main crops of everything have been sown there are always small successional sowings of various things to be made, especially of salading. And it is a very great help in hot weather if newly-sown or planted things can be shaded. A few branches cut from trees and stuck in the ground are a great help until things get established, and they save watering.

Potting Plants.—In the first place the pots should be made clean by scrubbing. If they are quite new ones, they should be soaked for several hours before using; if they are used as received from the factory they absorb a good deal of moisture if not soaked beforehand. If the pots are old and covered with green they should be scrubbed with strong, hot soda water. When dry drainage must be put in. This usually consists of pieces of broken pot placed in the bottom. Cinders or broken bricks will do, but crocks are to be preferred. Over the hole in the bottom of the pot place one crock as nearly flat as possible;



HOW TO DRAIN A FLOWER-POT.

if it is rounded, place the hollow side upwards, so as to prevent the ingress of worms. Then put to the depth of half an inch smaller pieces of crock, and upon these place a similar depth of still smaller crocks. Select some of the rough turfy pieces of soil to put immediately upon the crocks, so as to prevent the drainage being choked by the smaller particles of soil. The plant to be potted must be placed in at such a depth that room will be left to cover the roots at the top half an inch deep, and then leave half an inch clear space for watering. The amount of soil to be placed upon the turfy bits will be determined by this. One cannot give any hard and fast rule, for much depends upon the size of the plant and the pot. The above directions may be followed in potting plants in 5-inch and 6-inch pots. Proper drainage is all-important; without this it is impossible to grow pot plants successfully.

Spraying Fruit Trees.—Doubtless many are at work now washing or spraying their fruit trees. In a small way there are plenty of washes suitable without using the arsenical and lime

mixture which the large grower uses on account of its cheapness. For years I have been using *Jeyes' Gardeners' Friend* mixed with water and *Quassia* extract. Among cheap washes many are made by using *Sunlight* soap at the rate of one ounce to the gallon of warm water. In this matter it is much easier and cheaper to prevent than to cure, and the washes need not be so strong.

Sow Endive.—Autumn salads can scarcely be made without good *Endive*. The early-sown plants generally bolt. It is not often the June sowings give trouble in this way, and from then until the middle of August frequent sowings can be made. The green curled is a popular variety. The *Batavian* has broader foliage, and has more the appearance of a *Lettuce*.

Planting Winter Greens.—These should be planted this month as fast as land becomes vacant. When vacant land has been scarce I have planted Broccoli and other greens between rows of Potatoes. When this is done both crops may have to sacrifice something; but still fairly good results are obtained if the land is well cultivated. It is a common practice to plant late Broccoli after Strawberries. As soon as the crop of the latter has been gathered the plants are chopped off with a spade, and as soon as the leaves have dried they are burnt on the ground and the ashes scattered. Breaking up the surface with the spade leaves a loose tilth several inches in depth. Lines are set out and holes made with a crowbar $2\frac{1}{2}$ inches to 3 inches apart, and the Broccoli which have been pricked out and seasoned for the purpose are planted and thoroughly watered in; liquid manure may be given if available. The firm ground ensures a sturdy growth capable of standing severe weather if it comes. I have never lost a crop planted in this way, with room enough between them to keep the plants dwarf and sturdy.

GARDENING OF THE WEEK.

FLOWER GARDEN.

CLIMBERS ON WALLS, Pergolas, &c., making rapid growth must be attended to in the way of periodical tying and arranging of the shoots before they become entangled and intertwined. Avoid formality in training vigorous growers on walls; rather tie rampant shoots loosely and naturally, allowing them to festoon and ramble at will within limits. Unfortunately the beauty of many of our finest climbers is often marred considerably by too strict adherence to precise training. Take, for instance, *Vitis Coignetiae*, and note the contrast between those allowed to grow freely and those fettered tightly in shreds and strings. In districts where the weather is bright and dry, especially if accompanied by parching easterly winds (as is the case here), late

SPRING-PLANTED TREES AND SHRUBS will show signs of distress. Thorough soakings of water as often as necessary, light mulchings afterwards, syringing the tops, even several times daily if the foliage flags, must not be neglected. The critical period for them will soon be over, for as they root into the soil they can fairly take care of themselves, but under the present trying circumstances assistance, prompt and effective, must be rendered. Under the same climatic conditions green fly is rampant, and some red spider and thrip as well.

ROSES particularly are great sufferers. These insects infest them in myriads. To destroy the latter, apply effective and reliable insecticides at once, and at frequent intervals. Dull days or evenings are best for applying them, and in most cases it is advisable to wash the bushes well with clean soft water early the following morning. Look over spring-flowering

DECIDUOUS SHRUBS occasionally, cutting clean out (in most cases) the spent flowering shoots, encouraging strong growths in the current season, allowing plenty of sun, light, and air to play around them to mature the shoots, thus ensuring healthy free blossom next spring. *Deutzias*, *Weigelas*, and similar plants are greatly benefited by this annual removal of old flowering wood.

RHODODENDRONS and KALMIAS are feeling the effects of the drought, and if it is impracticable to water all of them an effort must be made to keep the soil moist about the roots of the late-flowering varieties and the *Kalmias*, for the latter are very susceptible to drought. In regard to

the former, indications point, in many instances, to prematurely ripened wood, which will undoubtedly make a second growth after rain comes, to the detriment of next year's blossoming, so it is best to keep them growing now.

BEDDING PLANTS, ANNUALS, &c., should be watered as soon as planted. Give good soakings; sprinklings will afterwards keep the leaves fresh for a time. If planting is not completed press on the work. Probably frost has injured some tender plants. If available, it is better to replant with fresh healthy plants than rely upon those that have received a serious check.

The Gardens, Tan-y-bwlch, North Wales. J. ROBERTS.

INDOOR GARDEN.

ZONAL PELARGONIUMS.—By this time the earliest batch for autumn flowering are established in the flowering pots, and can be placed in the open. Select a sunny position, as much better results are obtained from well-ripened wood. Stand the plants preferably on an ash bottom, and place each pot inside another a size larger to prevent the plants drying up quickly if the weather is very hot and dry. Pinch out the points of the shoots several times, and remove all flower-buds till about six weeks before the plants are required in flower. When the pots are becoming full of roots liquid manure can be given. A little shade is necessary for the show and fancy varieties during the hottest part of the day. The scented-leaved varieties must not be neglected. Besides being sweet-scented, the *geranias* are very useful for arranging with cut flowers.

GESNERA EXONTENSIS.—Shake out the tubers from the old soil, and start in shallow boxes filled with leaf-mould or cocoanut fibre and sand in a warm house. When the young growths are an inch in length pot up the stronger singly into 5-inch pots, and the remainder three in a pot. Use a compost of equal parts of fibrous loam, leaf-mould, and peat, adding plenty of sand and a little broken charcoal. Encourage rapid growth in a warm, moist house, and pot on as soon as the roots are spreading in the new soil. Use soil of a more lumpy nature, and do not pot very firmly. When forming nice plants place in a light position to develop the true colour of the foliage.

TECOMAS.—Pot off the cuttings into small pots when rooted, and grow for a time in an intermediate house. To obtain good heads of flowers the plants should not be pinched. Remove all side shoots, allowing only one head of flowers to each plant; 5-inch pots will be large enough for the final potting. Use fibrous loam, with a little leaf-mould and sand added. Pot on or top-dress the old plants and thin out the growths, as the wood must be well ripened to obtain good flowers. The greenhouse varieties can be placed outside during July and August, and the stove varieties placed in a cooler house. The plants treated as creepers on the roof or pillars require thinning, and as much light as possible to be given.

GENERAL REMARKS.—Damping is very prevalent in the flowering houses, owing to the recent wet weather. *Calceolarias* and *Cannas* have suffered badly. Little can be done beyond picking off all damp flowers and keeping the houses as dry as possible. Mildew is also very prevalent, notably on *Roses* and the *Sweet Peas* flowering in pots. Spray with potassium sulphurate, dissolved in water, at the rate of 1oz. to two and a half gallons of water, or dust with sulphur. *Solanum integrifolium* and the *Egg Plants* are ready for shifting on into the fruiting pots. Use a rich, lumpy compost, and pot only moderately firm. The perennial *Asters* should by this time be ready for the flowering pots; 6-inch or 7-inch are quite large enough if the plants are fed liberally when well rooted. Stand *Azaleas* outside, selecting a position where they can be shaded for a couple of hours in the middle of the day when very bright. The specimen *Coleus* may now have the final shift into 12-inch or 14-inch pots.

Royal Botanic Gardens, Kew.

A. OSBORN.

ORCHIDS.

THE SPRING-FLOWERING PLATYCLINIS (DENDROCHILUM) GLUMACEA and its variety *valida*, having now completed their growth, will be greatly benefited by a long season of rest. Both plants will require sufficient water at the root to preserve the bulbs and leaves in a plump condition. Our plants are sprayed over every day, the principal object being to keep the foliage clean and free from red spider. This spraying is generally found to be sufficient for them throughout the resting season. *P. filiformis* is now sending up its thin, slender flower-spikes from the centre of the young breaks, and from this time until the flowers are open the plant should have copious supplies of water until the growths are fully matured. Well syringe the plant overhead every day, but when it is in flower the leaves should be sponged instead, about once a week being sufficient. If either of these plants requires repotting, or it is thought necessary to divide them, the work may be done at the present time. They succeed in shallow pans, using a mixture of equal parts of peat, leaf-soil, and chopped moss, to which may be added a liberal quantity of broken crocks and coarse silver sand. Suspend the plants in a cool, shady position in the intermediate house, where they may remain the whole year round. All the *Brazilian*

MILTONTIAS, such as *M. spectabilis*, *M. moreliana*, *M. cuneata*, *M. candida* grandiflora, &c., should be kept well shaded from bright sunshine, otherwise their foliage becomes far more yellow than is desirable. I find the open lattice-work blinds are insufficient shade for them during the hottest part of the day, therefore it is necessary to put on some extra covering. I prefer having the glass stippled, as advised in a former calendar. The same remarks apply also to the well-known *Miltonia vexillaria* and its numerous varieties. Plants of this species that have gone out of bloom should now be kept in a cool, airy

position, and until the plants restart into growth very little water will be necessary at the roots. Now is a good time to

REPORT the following plants if they require it: C. Mossie, C. Mendeli, C. Skinneri, C. intermedia, C. Loddigesii, C. maxima, C. Schroderi, C. dorniana, also plants of C. Triane, which have only recently recommenced to grow. If repotting be necessary, it should be done before roots or growth make much progress. It is important that none of these plants should be overpotted, but give just as much space as will suffice for two seasons. Pot the plants in the same way and in the same kind of compost as advised for C. Triane, &c., in my calendar for April 29. After repotting place the plants in their growing quarters, and keep them a little more shaded than usual till they are re-established. Give water very sparingly, and no more than is actually necessary to prevent excessive shrivelling of the pseudo-bulbs. A slight shrivelling in some of the bulbs may occur, but no harm will be done if the atmospheric conditions are evenly balanced, and they will soon regain their fresh, plump condition, especially when the new roots have grown into the compost and attached themselves to the sides of the pot. There are also numerous plants of Cattleya hybrids and Laelio-Cattleya hybrids that are beginning to push out roots and new growths, and will require attention as to repotting, &c., but it is impossible to enumerate them all here, and much must be left to the discretion of the cultivator. Cattleya labiata Warneri has just flowered from the current season's growth, and as numerous young roots will soon appear from the base of this last-made pseudo-bulb, the plant should be repotted at once. So far as growth is concerned the plant will be at rest for a considerable time, but rooting will go on for several months. The plant should be kept in the coolest part of the house, and nothing should be done to induce new growth. C. bowringiana having been at rest for a long time, is now starting to grow, and should therefore be placed at the warm end of the house. Water must be given in small quantities until the growths are several inches high, when the plant may be gradually accustomed to more copious and frequent supplies.

Burford Gardens, Dorking.

W. H. WHITE.

FRUIT GARDEN.

PINK APPLES.—If more fruits of the Queen variety are ripening than are required for immediate use, they may be retarded in a house where they can be kept shaded and dry. Water must be given very sparingly while the fruits are colouring. Remove all suckers that are not required for stock. Plants which have fruited and are bearing suckers for propagating next month should be placed at one end of the house near the glass, where they can be kept syringed and watered till the time is at hand to pot the main batch. Later plants which are swelling their fruits must be treated liberally. They must be frequently watered. Diluted liquid manure and guano water may now be freely used till the fruits commence to colour. Close the house early in the afternoon after syringing. The plants which are intended for fruiting next year require more attention as the pots become filled with roots. Feeding may now be indulged in more frequently. Weak soot water may occasionally be given both at the root and when syringing with good results. Avoid overheating the hot-water pipes during mild, congenial weather, or the plants will become drawn and weak. This will also very often cause them to throw up their fruit prematurely. Admit a little air early on fine mornings, increasing it as the temperature rises, but close early in the afternoon after moistening the house. Do not allow suckers to become pot-bound before shifting them into larger pots. Push them on as fast as possible while the weather is favourable. Remember that during late autumn and winter they should be practically dormant.

CHERRIES (DESSERT).—The summer pruning of these must be done before the fruits commence to ripen. Shorten back the shoots to five or six leaves, except those it is desired to retain for extension. Remove all superfluous growth so that light and air can have free access to ripen both fruit and wood. If the trees are affected with the black aphid, the young shoots should be dipped in tobacco water. The trees must now be covered with fish-netting, or the birds will clear the whole crop before it is ripe.

THINNING FRUITS.—If really good fruits are desired, they should be thinned where thickly set. In this one must be guided to some extent by the health and vigour of the tree. Trees which are inclined to become gross should be heavily cropped in order to counteract the excessive growth. A large pair of Grape scissors is convenient for thinning fruits. The final thinning of Peaches and Nectarines should be done as soon as the fruits have stoned. Lay in succession shoots, removing those which are not required to furnish the tree.

Fruit Department, Royal Gardens, Windsor.

KITCHEN GARDEN.

PEAS.—These now demand close attention. Weeds should be carefully searched for, as they have a trick of springing up where they are not easily detected, and if allowed to seed they will quickly impoverish the ground and rob the Peas of food. A quantity of Peas will also require staking at this season, but before the stakes are placed in position some earth should be drawn up to the base of the young Peas. This is done by drawing the fine soil from the surface along each row without forming any drill. When the stakes have been fixed give the Peas a good watering if necessary, and mulch. This means an immense saving of labour and additional nourishment for the Peas. Spent Mushroom beds constitute splendid material

for mulching, but short grass cut with the lawn mower will do very well, only in this case there is always the chance of Daisy and other troublesome seeds being contained in it.

ASPARAGUS.—Owing to cold winds and low night temperatures early Peas are later than usual, and consequently Asparagus-cutting has been prolonged, but must now cease, and every encouragement be given in order to strengthen its growth. Free from all weeds and give a good soaking of water if they are in the least dry, following this with liquid manure. I know of no better stimulant for Asparagus when in full growth than liquid manure. If the soil is made thoroughly moist liquid manure may be applied fairly strong without the least fear of injury. Failing liquid manure guano will be found a good substitute. One handful dissolved in 6 gallons of water, applied with a watering-can, and well washed in afterwards with clean water, will assist the summer growth to make good plump crowns for another season.

BRASSICA.—Plant out Cauliflower, Savoys, Brussels Sprouts, &c., as soon as the plants are ready. Nothing is to be gained by allowing the young plants to remain too long in the seed beds, or where they have been pricked out. Run the Dutch hoe all over the ground before planting, and gather off all weeds; no matter how much they may have been harassed with the hoe, nor how small they may be, it will save future trouble to have the smallest removed.

FRENCH BEANS.—Another sowing of these may be made in some situation where a frame can be conveniently placed over them when the nights begin to turn cold. Failing the shelter of a frame, a few late French Beans may be grown by the base of a wall with a southern exposure. Let the ground be well broken up, adding at the same time a little fresh soil. Sutton's selected Ne Plus Ultra is a first-rate variety for late sowing, either for growing in pots or where shelter is obtainable. Sow the seed sparingly, so that the plants may grow robust, and be able to withstand low night temperatures when they prevail.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 5, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

LIQUID MANURE FOR ROSES (A. B. C.).—An effectual and simple plan of feeding Tea and other Roses is to give each healthy plant a tea-spoonful of fish or other guano, spreading it on the soil, and well water it in, giving as much as a gallon of water per plant. One ounce of nitrate of potash and 10z. of phosphate of potash in 1 gallon of water makes a good artificial manure. Give each strong plant about 1 pint of this well diluted once a week. It is best to apply it after rain, but if we receive no rain, then give clear water first. If possible place a cask holding about 15 gallons of water in an out-of-the-way corner of the garden, and put into the water 1 gallon of fresh cow manure. Let this stand about four days, then apply it neat twice a week until colour is seen in the buds. The bag of manure should be replaced after the tub has been refilled once. Of course, if you give artificial manure as mentioned above you must alternate with the cow manure.

MME. ISAAC PEREIRE WITH GREEN CENTRES (Miss St. J. Midway).—There are a few Roses specially addicted to this troublesome bad quality, which rarely shows itself after the first blooming. There are several explanations of this curious trait, one of the most generally accepted being

spring frosts, which cause a check to the flow of sap, and hence the malformation. Another contributory cause is excessive manuring, and, in fact, anything that will bring about a check to the formation of the bloom buds. We think that it is best to remove these malformed buds and encourage the plant to produce a healthy growth, which should ensure perfect blooms during the autumn. This is a glorious Rose, deliciously fragrant, and one worth some extra care to bring it to perfection. We do not believe the question of whether the plant is on its own roots or not would have anything to do with these malformations. Sometimes it is only the centre bud affected, so that when disbudbing you can remove the centre bud and trust to the side buds for more perfect quality.

REMOVING BRANCHES FROM CONIFERS (E. M. M.).—This work is best carried out during the last three months of the year, when the sap is in a comparatively quiescent state, as if done at other times there is a risk of bleeding and consequent weakening of the specimen. In cutting these minor branches they should be taken off as near to the main stem as possible, as if a spur is left it will in time perish, and the decay thus set up is very liable to extend to the main trunk. Should the branches be of sufficient size for a saw to be employed, it should first of all be inserted underneath the branch, which must be sawn a little way upward, then remove and saw in a downward direction till the branch is severed. This is done in order to prevent any splintering. When the branch is removed a good plan is to smooth over any irregularities with a knife, then paint the cut portion with Stockholm tar, as this tends not only to heal the wound, but also to prevent the ingress of wet, which is liable to set up decay. In the case of small branches and secondary shoots they can easily be removed with a knife, but with regard to these the same procedure as to the season and waterproofing with tar holds good.

VARIOUS QUESTIONS (Essex).—(1) The soot-like appearance on the leaves is the deposit of aphides or green fly, which, judging by the specimens sent, must be swarming on the plants. The only way to get rid of it is by sponging with warm water and soft soap, but once remove the cause the badly infected leaves will soon drop, and their place be taken by young clean ones. (2) The white stuff is the old skins of the aphides, for they change their coat several times during their life. (3) Old leaves often turn red as they die off, and it also occurs if the roots are allowed to get too dry, or if the plants are suddenly exposed to full sunshine. (4) There are various remedies for destroying green fly, but one of the most effectual, and which we can highly recommend from personal experience, is the XL All Vaporiser, which can be obtained with instructions for use from all horticultural sundriesmen. Geraniums of all kinds when in the greenhouse need a free circulation of air, and if the structure is kept too close the plants are far more liable to be attacked by aphides than when treated in a more robust fashion.

TRANSPLANTING YULAN (E. M. M.).—Your suggested idea of removing the Magnolias to a group on the lawn is undoubtedly a good one, but in carrying this out it must be remembered that none of the Magnolias transplant as readily as many other plants, hence a good deal of care is necessary. From the difficulty attending their transplanting they are in nurseries often grown in pots. The best time for carrying out the work is in the latter part of October or during the month of November, as they are then dormant, and the roots have time to get over the check of removal before the flowering season. The distance apart at which they are planted will depend to a certain extent upon their diameter, concerning which you say nothing, and also upon your idea in the matter, as if the object is to form a group which will be effective

without overcrowding for some years, a distance of 8 feet to 10 feet will be a suitable one, but this is insufficient for the Yulan to attain its full dimensions as a tree. The distance named is, however, the one likely to give you the greatest amount of satisfaction, but as above stated this must be to a certain extent determined by the plants themselves.

WATER TANK AND HARD WATER (G. M. G.).—Nothing softens water better than exposure, though the hardness is modified by the application of Anticalcare, which may be obtained from horticultural sundriesmen. It is due probably to the presence of lime in considerable quantity that the plants do not thrive. You have not given the size of the tank or the depth of water. If you will do this we will endeavour to give you the names of some of the more suitable plants for the purpose.

HEPATICAS (Kirkstall).—If you have not made any mistake in the time of the flowering, we can only assume that you possess a rather early-flowering variety of *Hepatica angulosa*, and not *H. triloba*, which flowers with much greater freedom. We can decide the question now for you even though the plant is not in flower if you send a couple of leaves in box in damp moss so that they remain quite fresh. When we know which variety you possess the advice you seek can be given without speculation.

SHRIVELLED PLANTS (K. A. R.).—No doubt the weed killer in the water is the cause of all the trouble, and the only thing that can be done is to allow the plants to recover naturally from the severe check they have sustained. This will take some time, but we fail to see anything that you can do to hasten matters, unless in the case of quick growing things like Geraniums, which are badly damaged; it might be advisable to turn them out of the pots, take off most of the old soil, and repot in some good compost. This is not absolutely necessary, for at this season the plants will in all probability soon grow out of their trouble, but, of course, you must discontinue using the water from that source, which, however, we presume you have already done.

OLEANDER (R. D.).—If the Oleander is too much starved at the roots the blossoms often fail to open in a satisfactory manner, hence, if your tub is very full of roots, the plant may with advantage be shifted into a larger one. At the same time, although the Oleander is a moisture-loving plant it should not be always standing in water—indeed, under cultivation, very few plants, apart from actual aquatics, will succeed treated in this way. As the present season's flower-buds are in all probability too far advanced for the plant to be repotted now, we should advise watering it about every ten days with some weak liquid manure, or you may use some of the concentrated manures that are now so popular. While taking care that the roots are not allowed to get dry the plant must on no account be left standing in water. The Oleander sets its buds freely enough, but when confined in pots or tubs it needs just that little stimulus furnished by the liquid manure to bring the blossoms to perfection.

MILDEW ON ROSES OUTDOORS (C. Innes).—Mr. Goodwin's recipe for the preparation of sulphide of potassium as a remedy for mildew upon Roses is as follows: "Make a solution of hot soapy water and drop into it some pieces of the sulphide, which will quickly dissolve. Keep stirring the mixture and adding the sulphide until the water becomes bright green." To apply it, a Vermorel Knapsack Sprayer is the most handy, using the finest nozzle, although a fine syringe would answer as well if only a few plants are grown. The quantity of the sulphide usually advised is not strong enough, and it may safely be used as recommended above, but a word of caution is necessary, and that is keep it away from any paint, which it quickly ruins. All plants that

show any signs of mildew should be given a good spraying at once, and continue this once a week, if necessary, until bloom buds show colour. It is well to apply the sulphide before the mildew has taken a firm hold of the plants. For mildew under glass nothing can surpass Campbell's Sulphur Vaporiser. It is the most effectual as well as the most simple remedy that is known, and all Rose growers are under a debt of gratitude to the inventor of this vaporiser.

ROSE QUESTIONS (Dr. Andry).—The early growth of Gloire de Dijon exposes the variety to the attacks of nearly all Rose enemies, and from your description we should say a caterpillar has been eating away the stems of the buds, and consequently they wither and drop off. Possibly the trouble may arise from the boring insect, which eats its way down the pith of the shoot and is not discovered until too late. Or perhaps the buds decay owing to the wood being in an unhealthy condition arising from defective root action. After flowering cut away some of the old wood and encourage some vigorous young growths from the base of the tree, which growths another season will yield the best buds and blossom. General Jacqueminot has probably suffered from spring frosts. This Rose is best when pruned fairly hard. One cannot tell without seeing the plant, but we should say there is defective root action. Encourage growth by hoeing soil frequently and thin out the head, removing some growths entirely to allow a free circulation of air. Afford the plant some weak liquid manure about every ten days. Next season prune rather severely.

GENTIANA ACALIS (Miss C. Lincoln).—If the plants had been planted in suitable material they should now be in perfection. The flowering shoot sent showed signs of poverty, and this may be brought about by insufficient root moisture or lack of the right admixture or depth of soil. The only one of these you can now remedy is the moisture, and we need hardly say that upon the development of the shoots this year much of the flowering next spring depends. The chief points to aim at are a sunny position, an assured depth of 15 inches at least of good soil, good drainage, with ample summer moisture, and very firm planting. This last is practically essential. We have trodden, beaten the plants with the ordinary turf beater, and even used the garden roller over the beds when the plants were in position. The soil should be made up of light sandy loam, and in the case of heavy soils some old mortar and the addition of peat is helpful. The best time for replanting is early October or even in September. As the plants are now in "very gritty soil with many stones about them," it is more than likely they suffer from dryness at the root, and exist upon and exhaust their own vitality to some extent. Try the experiment of thoroughly watering them for a few weeks, and do it fearlessly and without stint. After six weeks write us again.

LIST OF FRUITS (Washington).—To ascertain the names of reliable florists, seedsmen, or fruit growers in the United States, we advise you to write to Mr. Leonard Barron, 136, Liberty Street, New York, U.S.A., as he is familiar with such firms in that country. With respect to good English firms from which to obtain the fruits named below, apply to our advertisers. Whilst giving you the lists of fruits asked for, we cannot guarantee that all those named will do well in the United States. They are amongst the best of their kinds in this country. Red Currants: Red Cherry or La Versailles or Fay's Prolific (these are all the same) and Raby Castle, a good variety. White Currants: White Transparent. Black Currants: Lee's Prolific, Baldwin, and Boskoop Giant. Cooking Gooseberries: Keep-sake Greens, Lancashire Lad, and Industry, red. Dessert Gooseberries: Red Champagne, Red Warrington, and White Smith. Greenhouse Figs: Pingo de Mel and Brown Turkey. Sweet

Cherries: Elton, Kentish Bigarreau, and Black Tartarian. Cooking Cherry: Morello. Cooking Plums: Rivers' Early Prolific, Victoria, and Monarch. Dessert Plums: Jefferson, Greengage, and Coe's Golden Drop.

TOMATO DISEASED (J. Lockhart).—Your Tomato leaves appear to be infested by a fungus, the Tomato leaf rust (*Cladosporium fulvum*). The best thing to do is to remove the infected plants and burn them, and to spray the others with 1oz. of sulphide of potassium dissolved in a quart of hot water, then add enough cold water to make 10 gallons, or spray with diluted Bordeaux mixture. Next season look out for this fungus, and as soon as you find the slightest trace or it spray the plants with one of the above mixtures.—G. S. S.

CATERPILLAR ON APPLE LEAVES (Amateur).—The caterpillars which have rolled up the leaves of your Apple trees are those of one of the bell moths, which belong to the family Tortricidæ. Many of the caterpillars of this family are so alike, and have such similar habits, that it is almost impossible to name them without a great deal of investigation, or breeding them till they become moths. It is of little use, as you have found, to try and kill the caterpillars with an insecticide, as it cannot be made to reach them properly. Pinching the leaves as you have done, or cutting them off and at once putting them into a basket from which they cannot fall out, is about the best thing that you can do. If the chrysalides are made in the shelter of the leaf it would be useful, when the leaves fall in the autumn, to collect and burn them. In the spring, if you see small moths flying about the trees of an evening, it would be worth while to try and catch them in a butterfly net.—G. S. S.

VARIOUS (B. B.).—Cantaloupe Melons are now little grown, not only because less prolific in fruiting than are other good varieties, but also because the fruits have less flavour and excellence. The trouble you have with your plants in inducing them to finish up more than a couple of fruits to each is characteristic. Better grow Hero of Locking, Blenheim Orange, Countess, Scarlet Gem, or other of the best and most reliable varieties of to-day. Excessive dryness of the atmosphere of a vinery is the primary cause of the appearance of red spider. Syringe freely with clean water, and well sprinkle the floor at night, so that vapour be exhaled. If you have hot-water pipes, heat them well, then coat the pipes with a paste of soft soap and sulphur, shutting up the house close at night. You may also wash the leaves with a decoction of Quassia chips, soaked in boiling water and soft soap, well followed up. With reference to scale on Palms, scrape them off into a basin of water, then touch the affected parts with a mixture of soft soap 1lb., 1lb. of sulphur, and a wineglass of turpentine in two gallons of water, and well paint or sponge leaves and stems.

DISEASED CUCUMBER LEAVES AND PLANT (J. H.).—The old leaves sent are undoubtedly suffering from an attack of a virulent fungus, commonly called "the Cucumber spot," and, so far as we know, no cure has been found for it. If your plants are fairly young and in a good bearing condition, the best thing you can do is to force the growth on with greater heat and a drier atmosphere, so as to take as many fruits as possible before the plants are destroyed by the disease. When done with the plants should be burnt, and the house thoroughly disinfected by burning sulphur on two succeeding days, washing down inside and out afterwards. There is plenty of time to obtain another good crop, and seed should be procured from another district a distance away, as your seed may be tainted with the disease. The young plant is suffering from the same complaint. If it has been growing near the diseased plants, no doubt it has contracted it from them, but, if grown in a house isolated from the diseased plants, and in

which no disease was apparent, this would give colour to the belief that many hold, that the seeds harvested from diseased plants are themselves tainted, and that the disease is communicable in this way, and therefore more or less hereditary.

VINE LEAVES INJURED (J. C.).—Your Vine leaves are badly infested with red spider, and until this pest is got rid of no improvement in the condition of the Vines can be expected. The simplest remedy for effecting this purpose is to heat the pipes so that you can scarcely bear your hands on them some calm evening, and paint the pipes with flowers of sulphur made into the consistency of paint, closing up the vinery of course. The fumes of the sulphur after two applications on two successive evenings will kill the spider without injuring the Vines. Examine the leaves with a magnifying glass after the second application, and if any are found alive repeat the dose for the third time and the spider will be got rid of. We presume the Vines are not dry at the roots.

STAFF FOR GARDEN (K. S. F.).—The usual staff for a garden is a man per acre, but so much depends upon the amount of glass and in what state of efficiency the garden is maintained. In a small garden like yours every portion to be enjoyable should be done well. Take the kitchen and fruit garden, if thoroughly cropped this would occupy one man most of his time. You must also remember there is cropping, pruning, and other details the head man would undertake. Then there are the flower-beds and borders. You then have the remainder, and you would require one good man or, say, for six months, from April to October, a boy in addition to assist in mowing, sweeping, and general work. This would keep things in the best condition, as the man for the grounds in the winter could assist in digging and wheeling. It would at the start pay you to be liberal in the way of labour to get it into condition. This done there would be less labour, and as you know so much depends upon the one in authority and the requirement of the household. There should be no deficiency in any way once the land is in a suitable condition, and you get honest labour at the start.

CACTUS SEEDS (A. G. W.).—As all Cacti grow in dry, sandy soils on rock *débris*, their seed should be sown in similar material, well drained and only slightly moist. As regards temperature, since Cacti have a wide range, a few species being hardy while others are tropical or sub-tropical, the necessary heat to induce germination would be determined by this, and the species would require to be known before definite advice can be given. Many, however, would germinate under unheated glass during the summer months, but as Cacti develop very slowly we would strongly advise obtaining small plants to start with, unless there be some special object in raising from seed. In the native habitats of Cacti the seed vessels lie on the surface of the hot, sandy soil and frequently develop plants from buds on the outside as well as from the seed within. This implies that the seed should be sown shallow, and given as much sunlight as possible.

DISEASED TOMATOES (H. M. C.).—Trouble with Tomato plants seems to be common in some localities, whilst in others it is seldom heard of. The Tomato is a somewhat tender exotic, impatient of cold and of damp, and of the latter equally whether of cold or heated damp. The drier the air of a house in which plants are grown, and relatively the drier the soil, also consistent with moisture enough to secure good growth, the healthier the plants. While, however, there should be ample ventilation care should be taken to avoid draughts. Soil, again, should not be too rich, as that generates a somewhat sappy or soft stem and leaf growth. It should also be fairly firm, so as to promote fine fibrous root production rather than coarse roots. Manuring from the surface, either in dry or liquid form, is best given

after some two or three clusters of fruit are set, and then not strong, or otherwise cracking and black spot are promoted. These are conditions essential to the well-being of plants that come to us from a somewhat arid climate, and will not do well if too liberally cultivated. The flagging of the plants is due to the loss of roots. You may save them by heaping fresh soil up round the stems, but if the flagging spreads, as it may, the best remedy will be a good dressing of fresh lime on the surface, and lightly forked in. With respect to the Bordeaux mixture, it is the same as the sulphate of copper solution, but possibly you did not make yours properly, hence the burning of the leafage. Obtain 1lb. of sulphate of copper (bluestone), crush it fine, then dissolve it in 10 gallons of ordinary water in a wooden tub. Obtain 1lb. of quicklime and boil it with 1lb. of treacle in a pot for half-an-hour. When the bluestone is dissolved, and the lime water cool, pour it into the tub, stir it well, and then it is ready for use. Apply it with an Abol syringe, and repeat once a fortnight, but cease to do so when fruits begin to colour. Wipe all fruits clean before marketing them.

FRUIT ON YOUNG PEACH TREES FAILING TO SWELL (J. E. D.).—Young, robust Peach trees are apt to cast their fruit for the first year or two of bearing, especially if the growth is very strong. The cause is the imperfect ripening of the previous year's shoots, resulting in weak and more or less pollenless flowers, which always fail to fertilise perfectly, the same as the sample sent, in which no stone has been formed. If the young tree has made strong growths, as we surmise it has, it should be lifted out of the ground towards the end of October, the strong roots shortened by one-half and replanted, mixing some new loam with the original soil, and also adding a sprinkling of lime and a few quarter-inch bones. If the lifting and replanting are expeditiously and carefully carried out, the tree will receive no check to speak of, and the root pruning will bring about its fertility. You may help very much to this end also by having the lateral growth (that is, the young side shoots emitted by this year's shoots) pinched off with the finger and thumb as soon as large enough to handle. This will enable the current year's shoots (which are the bearing shoots of next year) to be exposed to the full influence of light and heat during the summer, and so become hard and well ripened and in a condition to produce strong and perfect flowers the following spring. We would also advise that the pollen should be communicated to the pistil of the flowers by a camel's-hair brush for the first year, so as to make sure that perfect fertilisation has taken place.

SMALL BORDERS (R. A. Macdonald).—You have omitted a rather important detail. You do not say how these borders are situated, and whether in the open or against a house or building or wall. If a building is near you could, by raising the rockery somewhat, greatly increase the planting area. But assuming the position is quite in the open, your better plan will be as follows: Dig up the ground deeply over the entire area, not less than 18 inches, and if the whole of the soil is good, and not too heavy, it may be allowed to remain. If it is heavy, work in plenty of grit or sand. Road grit is good. Then you would require about two cartloads of soil for the two positions to raise the sites above the ordinary level, so arranging the soil that a comparatively flat top results. If the borders are against any solid masonry, a wall or building, more soil could be added, and in such a way that the height may be increased and a slightly sloping bank be the result. In so small a space, small rocks and small plants generally should be planted, unless you would give preference to more showy things and clothe the entire surface with alpine Phloxes, Aubrietias, Achilleas, and the like. If you preferred free-growing subjects, a few stones roughly inserted to three parts their depth in the bank of earth, and with the exposed portion of the stone

projecting in a nearly horizontal manner, the plants could be planted behind the stones in such a way that they would presently grow out and droop over the stones. On the other hand, if it be a sunny aspect, you will find many of the encrusted Saxifragas to be quite good for the position, and by forming small pockets, or positions of 9 inches or so across, a nice assortment could be planted. The chief thing to bear in mind is that whatever you plant let the stones be placed in the bank of earth; and, secondly, that they exist in all artificially-arranged rockeries as retainers of the soil, and retainers also of moisture for the benefit of the plants. A rockery is often converted into a plant cemetery simply because two-thirds of the moisture runs away from the plants and is lost. If you will give us the aspect of the position, and say whether you prefer large patches of colour or a small collection of plants, we will name some suitable things.

GRAPES UNSATISFACTORY (S. M. W.).—There is not much doubt that your Vine border wants attending to. The roots have either got into a sour subsoil, or the soil of the whole border is worn out and wants renewing. If, as you seem to suggest, the latter is the case, you must wait until the autumn to do the work thoroughly. You can, however, at once do something to improve the present crop. Take off several inches of the surface soil until you come to the roots of the Vine. Take all this old surface soil away, and replace with fresh turfy soil, with which some Vine manure or bone-meal has been mixed. Make this firm by treading, and give a good watering. The roots will soon make their way into the new soil and help the crop of fruit to finish more satisfactorily. In the autumn, when most of the leaves have fallen, you should dig a trench along the viney 5 feet or 6 feet away from the stems. Make the trench quite 2 feet deep. Then with a fork draw away the soil towards you into the trench. Take away as much as possible by this means until, in fact, you come to fibrous roots. Cut back all thick fleshy roots you come across, especially those that seem to be growing downwards. Place in fresh soil, taking care to avoid breaking the roots, and laying these in a horizontal position in the new soil. Lay in the roots at different levels; not all together. Make the fresh soil quite firm before placing the roots upon it, and tread each layer firmly after covering with soil.

FLIES IN A VINERY (W. B.).—If you shut your vinery up close and fumigate rather mildly with XL All, as you suggest, keeping the house close for half-an-hour, that should destroy all insect life in it, except perhaps the mealy bug, which is a difficult insect to kill. You could, once you had exterminated the flies, keep them out by tacking over all ventilators or open doors, frames covered with tiffany or any very fine netting sufficiently small in mesh to exclude flies, yet to admit air. Such guards would have the merit of keeping out wasps and cold currents of air, which often breed mildew. As to mealy bug, scrape them off into a basin of water, and touch each spot with spirits of turpentine or paraffin to destroy any eggs left. Constant searching for and clearing these pests is the best, indeed almost the only possible remedy.

FLY ON MELONS (Norfolk).—The fly on your Melon and Cucumber plants injures the latter by drawing off their juices and by covering the leaves with a sticky secretion, which clogs up the pores. One of the chief things to be remembered with a view to the destruction of this pest is to take some steps in the matter as soon as the fly is noticed. Your best remedies are to fumigate the house with tobacco paper or XL All Insecticide, or to syringe the affected shoots with tobacco water. The latter may be made by soaking tobacco paper in water. You would probably find the XL All Insecticide the most convenient method of procedure.

NAMES OF PLANTS.—*R. P.*—Probably *Spirea Bumalda*, but the flower was, unfortunately, very much withered. The Orchis is *O. maculata*.—*Rosebud*.—*Thalictrum thalictroides*.—*A. S. N.*—*Rose Mme. Pauline Labonté*.

W. B. R.—*Love-in-a-Mist (Nigella damascena)*.—*H. G., Brighton*.—In all probability *Cotoneaster bicellaris*, but cannot be quite positive without fruits.—*T. H. A. H.* The scarlet-fruited Thorn (*Crataegus coccinea*).—*T. Gibb*.—1, *Iris (smashed)*; 2, *Iris (smashed)*; 3, *Iris Abon Hassan*; 4, *Iris aurea reticulata*; 5, *Iris graminea*; 6, *Saxifraga Stansfieldii*; 7, single-flowered Stock; 8, *Veronica rupestris*; 9, *Heuchera americana*; 10, *Heuchera hispida*; 11, *Agathaea coelestis*; 12, *Crambe cordifolia*.—*E. A. H.*—1, *Veronica gentianoides*; 2, *Iris sibirica*; 3, *Aconitum Napellus*; 4, *Ornithogalum umbellatum*; 5, *Leucophaea aestivum*.—*Mrs. Kirkpatrick*.—1, *Heuchera americana*; 2, *Thalictrum aquilegifolium purpurascens*; 4, *Senecio Doronicum*; 5, *Lilium pyrenaicum*; 6, *Lychnis Viscaria splendens*; 7, *Heuchera sanguinea*; 8, *Veronica saxatile*; 9, *Potentilla anserina*; 10, *Saxifraga Aizyon*; 11, *Saxifraga hypnoides*. The yellow flower, which was unnumbered, was *Coronilla glauca*.—*W. Wooderson*.—1, *Stachys lanata*; 2, *Allium Moly*; 3, *Aster alpinus*; 4, *Macrostomia echinoides*; 5, *Limnantes Douglasii*.—*Adelberg*.—1, *Saxifraga trifurcata*; 2 and 3, both forms of *Saxifraga hypnoides*, which is so variable that it is impossible to name varieties.—*R. Findlay*.—1, *Carex pendula*; 2, *Dactylis glomerata*; 3, *Viburnum Opulus*; 4, *Chionanthus virginica*; 5, *Hieracium aurantiacum*.—*C. E. F.*—*Muscari comosum monstrosum* (the Feather Hyacinth).—*Bitterne Park*. Unfortunately the flowers were faded, but there are so many varieties of the *Squaleas* and other sections that it is impossible to name the various forms unless one has a collection for comparison. Messrs. Barr and Sons, of King Street, Covent Garden, London, or Messrs. Wallace and Co., Colchester, would no doubt name them for you, but you must send flowers carefully packed.—*E. P.*—*Eriogon philadelphicus*.—*Veld*.—1, *Cochlearia armoracia*; 2, *Ranunculus heterophyllus*; 3, *Potentilla Tormentilla*; 4, *Linum catharticum*; 5, *Vicia hirsuta*.—*G. Hill*.—1, *Diospyros Kaki*; 2, *Sedum oppositifolium*; 3, *Acena ovalifolia*; 4, *Helianthemum vulgare var. sanguineum*; 5, *Acena Sanquisorba*; 6, *Spirea Anthony Waterer*.—*J. Meade*.—The box contained a large mass of grass but only one Fern frond, that of *Lastrea dilatata*.

SHORT REPLIES.—*M. E. C.*—There is nothing uncommon in the flowers sent.—*Kirtan*.—The Pansy is not very unusual, and has no worth.

LEGAL POINTS.

THE WORKMEN'S COMPENSATION ACT (*J. W.*).—The Act applies to workmen employed in agriculture by any employer who habitually employs one or more workmen. The expression agriculture includes horticulture, forestry, and the use of land for any purpose of husbandry, including the keeping or breeding of live stock, poultry, or bees, and the growth of fruit and vegetables. Apparently the Act applies to private gardens.

FIRE INSURANCE (*Anxious Purchaser*).—The purchaser is liable, in the absence of express stipulation, for any loss which may result by reason of fire taking place after the date of the purchase agreement, and notwithstanding that the purchase has not been completed. The purchaser will not be entitled to the benefit of any policy of insurance taken out by the vendor. Moral.—Always insure immediately you buy a property, or arrange with the vendor to take over his policy, at the same time obtaining a letter or memorandum from the fire insurance company confirming the arrangement. In the absence of the company's acquiescence the purchaser cannot recover under the policy.

OBITUARY.

WILLIAM GEORGE WEBB.

COLONEL WILLIAM GEORGE WEBB, of Woodfield, near Stourbridge, member for the Kingswinford Division of Staffordshire, died on Wednesday, the 14th inst. It first became known on Friday week that he was seriously ill. He had returned from London a few days previously on medical advice, complete rest for a time being enjoined on him. The heart mischief from which he was suffering did not lessen, however, and though the bulletins concerning him did not show much change in his condition from day to day, he did not rally. Colonel Webb was the elder son of the late Mr. Edward Webb, a glass manufacturer

in the Stourbridge district, and was born in 1843. Like his father, he engaged in the glass trade, but ultimately left it, and in conjunction with his brother, Mr. Edward Webb, the present High Sheriff of Worcestershire, he successfully developed the well-known seed business with which their names are identified. Colonel Webb's public spirit and qualifications led to his name coming prominently before the Conservative party in the Kingswinford Division, when it was known that Mr. Staveley Hill would not again stand for Parliament; and his adoption by the party was ratified by his unopposed election for the division in 1900. He had since then shown himself indefatigable in the discharge of his duties. In this he no doubt overtaxed himself, for after late sittings in the House of Commons he would not infrequently start off by a very early train in the morning to fulfil some duty in a distant town. Colonel Webb was a magistrate for the county of Stafford, and his title of colonel was due to his long association with the South Staffordshire Volunteers. He entered the force as a private and rose to the rank of commander of his battalion, in which he took great interest. He married a daughter of Captain Broughton Pryce, and leaves three sons and two daughters.—*The Times*.

SOCIETIES.

GARDENERS' ROYAL BENEVOLENT INSTITUTION. A SUCCESSFUL EVENING.

THE sixty-sixth anniversary festival dinner of this institution took place, on the Friday last week, in the Whitehall Rooms, Hotel Metropole, when His Grace the Duke of Westminster presided over a large attendance of friends interested in this excellent gardening charity. It is satisfactory to know that the subscription list amounted to £2,100, His Grace contributing £200 and the Duchess of Westminster £50.

Among the numerous company present we noticed Sir Walter Smythe, Bart., Messrs. W. Robinson, H. J. Veitch, James H. Veitch, W. A. Biney, Arthur Sutton, V.M.H., Leonard Sutton, Edward Sherwood, George Paul, V.M.H., William Sherwood, W. Atkinson, W. Penrose Atkinson, W. J. Jeffries, E. A. White, George Bunyard, Herbert Cutbush, Henry Williams, J. Walker, Herbert Hicks, R. J. Cuthbert, G. H. Cuthbert, H. B. May, George Monro, Alfred Watkins, P. R. Barr, G. H. Barr, W. Icebon, C. E. Osman, G. H. Cox, W. Y. Baker, Joseph Rochford, H. W. Nutting, James Douglas, V.M.H., James Hudson, V.M.H., W. Crump, V.M.H., P. Blair, J. McIndoe, V.M.H., J. Asbee, H. Rides, C. Curtis, H. Dick, E. F. Hawes, W. Howe, D. Ingamells, Peter Kay, J. McKerchar, R. P. W. Glendinning, and many others.

We were pleased to see present Mr. Dreer of Philadelphia. The presence of those interested in horticulture over the seas is always welcome at such pleasant annual meetings as that of the Gardeners' Royal Benevolent Institution.

After the usual loyal toasts of His Majesty the King (patron of the institution), Her Majesty the Queen (patron), the President, H.R.H. the Prince of Wales, the Princess of Wales (patron), and the Rest of the Royal Family, the toast of the evening, "Continued Prosperity to the Gardeners' Royal Benevolent Institution," was proposed in happy terms by the Duke, who referred to the interesting fact that for twenty-one years his grandfather was president of the institution. This charity, said the chairman, was well worthy of practical sympathy. It had for its object the relief of those over sixty years of age who had formerly been employed in the different branches of horticulture, and also their widows, who might, from old age or sickness, find themselves in distress and poverty. It now had on its pension list the names of over 200 persons—120 men in receipt of £20 a year and about 90 women receiving £16 a year, making an annual liability of about £4,000, which had to be raised by voluntary contributions. One saw and enjoyed the glorious effects produced by the gardener's industry, and few could be more fortunate in that respect than he was at his home in Cheshire. But the life of the gardener was not literally a bed of roses. Nor were his gains great. He was a skilled workman, who gave an infinite amount of pleasure to the community at large by his labour and ingenuity, and yet his wages compared very unfavourably with those of skilled workmen in other branches of industry. Few gardeners could afford to lay by from their wages a sufficient sum to enable them to meet the rainy day or the inevitable prospect of old age. He therefore commended the charity to their notice, confident that when its objects were more generally known further generous contributions would be forthcoming.

Mr. H. J. Veitch, the treasurer, who, it will be remembered, occupied the chair last year with conspicuous success, responded to the toast, and said that, including the pensioners elected last January, the number on the books now amounted to 214, which is a record, this being seven more than at any previous time in the history of the institution. There were no less than thirty-two unsuccessful candidates at the last election, of whom six were blind and ten had passed the age of seventy years. Mr.

Veitch eloquently urged the claims of the institution upon the charitable, and made allusion to the gift of £500 last year by Mr. N. N. Sherwood, and to the generosity of Mr. Arthur Sutton, and paid a graceful tribute to the disinterested work of the committee, who, without payment of any kind, came long distances to be present at the meetings held during the year. He reminded the chairman that one-third of the committee was composed of practical gardeners, of whom his Grace's gardener, Mr. Barnes, was one of the most assiduous in helping forward the good work which the committee had in hand. The treasurer briefly reviewed the financial position of the institution, and again warmly commended it to all interested in gardeners and gardening. Special allusion was made to the great assistance afforded by the auxiliaries, and the beneficial results of the Good Samaritan and Victoria Era Funds.

The toast of "Horticulture in all its Branches" was proposed by Sir Walter Smyth, Bart., in a very happy speech, and responded to with much eloquence by Mr. George Paul, J.P., V.M.H., who lightly sketched the progress that has been made during the past few years in acquiring beautiful new flowers, and mentioned that for absolute quality the Englishman is well able to hold his own.

The toast of "The Chairman" was received with rapturous applause, and we are safe in saying that few chairmen have had a heartier and more genuinely welcome reception than the Duke of Westminster. This toast was proposed in graceful terms by Mr. Arthur Sutton, J.P., V.M.H., and in reply his Grace assured those present that he would always take the keenest interest in the institution, and it is a pleasure to know that both the Duke and the Duchess have consented to allow their names to be enrolled on the list of vice-presidents.

We were much interested in the reference to the Duke of Westminster's work in South Africa. There he has acquired about 20,000 acres of land, which have been divided into farms, on which homesteads have been built for the Cheshire Yeomanry which went out to the Boer War. The Duke has also sent out fruit experts, so that they may further the fruit-growing industry. It is pleasant news to hear that the farms are prospering. Such an enterprise is praiseworthy indeed.

One pleasant incident, though not on the list of toasts—which was commendably short—was the reception of the toast of the excellent secretary, Mr. G. J. Ingram, who was cheered again and again. This brought a delightful evening to a close.

Mr. Herbert Schartan was responsible for the music, and the tables were charmingly decorated, flowers and fruit having been sent by many kind friends of the institution.

The following is the list of contributions:

	£	s.	d.
His Grace the Duke of Westminster	200	0	0
annual subscription	10	10	0
Her Grace the Duchess of Westminster	50	0	0
Messrs. Rothschild and Son	105	0	0
Messrs. James Veitch and Sons, Limited	105	0	0
Arthur W. Sutton, J.P., V.M.H.	100	0	0
N. N. Sherwood, V.M.H.	62	10	0
William Robinson, F.L.S.	62	10	0
Baron Schröder	50	0	0
Messrs. W. and W. P. Atkinson (Fisher, Son, and Sibray, Limited)	31	10	0
A. Mackellar	31	10	0
W. Crump, V.M.H.	28	0	0
Harry J. Veitch	26	5	0
Messrs. Hurst and Son	26	5	0
N. F. Barnes	26	5	0
R. Milligan Hogg	25	0	0
A. Porteous	23	0	0
W. Mackay	23	0	0
Leopold Salomons	21	0	0
Arthur Robinson	21	0	0
Messrs. Barr and Son	20	0	0
Messrs. Dicksons, Chester	20	0	0
Leonard Sutton	20	0	0
W. F. Dreer, Philadelphia	20	0	0
George Norman	20	0	0
D. W. Thomson, Edinburgh	20	0	0
Bailey Wadds	20	0	0
Henry Parr	18	18	0
E. F. Hazelton	16	16	0
S. Barker	15	0	0
Thames Bank Iron Company	15	15	0
Henry W. W. Nutting	12	12	0
C. Evans	12	0	0
J. Condie	12	0	0
R. Jones	11	0	0
J. Tancock	11	0	0
P. O. Knowles	10	19	0
Covent Garden Table, per George Monro			
Joseph Rochford	10	10	0
James Sweet, V.M.H.	10	10	0
Edmund Rochford	10	10	0
A. Watkins	10	10	0
George Monro, jun.	10	10	0
E. C. Mott	10	10	0
George Monro, Limi	10	10	0
George Monro, V.M.H.	10	10	0
Other sums	66	0	0
Donations and subscriptions per David	150	0	0
Ingamells	50	0	0
Country Life, Limited	10	10	0
Sir Trevor Lawrence, Bart.	10	10	0
T. Smith	10	10	0
Henry Jones	10	10	0
Arthur William Paul	10	10	0
J. Mallender	10	10	0

Contributions continued	£	s.	d.
George Bunyard and Co., Limited	10	10	0
Messrs. B. S. Williams and Son	10	10	0
Messrs. W. Cutbush and Son	10	10	0
W. H. Massie, Edinburgh	10	0	0
A. B. Waddes	10	0	0
James Douglas, V.M.H.	9	9	0
Peter Blair	7	7	0
John A. Laing	7	7	0
Sir Walter Smythe, Bart.	7	7	0
J. Thompson	6	13	0
George John Braikenridge	6	6	0
W. J. Nutting	5	5	0
Worshipful Company of Gardeners	5	5	0
James Hudson, V.M.H.	5	5	0
Herbert J. Adams	5	5	0
Messrs. Paul and Son	5	5	0
George Churcher	5	5	0
H. G. Cove	5	5	0
W. Clement	5	5	0
Messrs. J. Anderson and Sons, Limited ..	5	5	0
Edward White	5	5	0
Herbert Hicks	5	5	0
Messrs. R. and G. Cuthbert	5	5	0
THE GARDEN, Limited	5	5	0
With other sums making a grand total of £2,100 0 0			

ROYAL HORTICULTURAL SOCIETY.

THERE was a very good display of flowers at the Royal Horticultural Society's Hall on Tuesday last, hardy flowers, such as Roses and Peonies, predominating.

ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, W. H. Young, W. Boxall, H. A. Tracy, Harry J. Veitch, H. Little, A. A. McBean, T. W. Bond, G. F. Moore, H. T. Pitt, W. H. White, R. G. Thwaites, J. Charlesworth, James Douglas, Jeremiah Colman, R. Brooman White, and de Barri Crawshaw.

H. T. Pitt, Esq., Stamford Hill, N., showed an extensive collection of Orchids, in which were many fine Cattleyas, e.g., C. Mossie var. thurgoodiana, C. Mendellii Pittie, C. M. The Monarch, and C. M. Alfred Smee. These and other Orchids were attractively arranged among Maiden-hair Fern. Silver Flora medal.

Sir Trevor Lawrence, Bart., Burford, Dorset (Orchid grower, Mr. W. H. White), showed a very interesting group of Orchids. Thunia Marshallii, T. veitchiana, and T. v. superba were beautiful. Odontoglossum crispum was well shown, and there were several sorts of Masdevallias. Epidendrum watsonianum, Aerides Lobbia, and Lælio-Cattleya Adolphus were notable plants. Silver-gilt Flora medal.

Lælio-Cattleyas were finely shown by Messrs. Charlesworth and Co., Heaton, Bradford, York. Especially good were L.-C. G. S. Ball, L.-C. canhamiana alba, L.-C. Fascinator, Brasso-Cattleya gigas digbyana, and Brasso-Lælia purpurata digbyana. Silver-gilt Flora medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed some very good Cattleyas and Lælio-Cattleyas in their group, including C. intermedia alba, C. Mossie Bronze Queen, L.-C. Eudora, and L.-C. Martinetti. Epidendrum primato-carpum and E. vitellinum majus were very attractive. Silver Flora medal.

Miltonia vexillaria was well shown by Mrs. Ernest Mills, Redleaf Gardens, Peshurst (gardener, Mr. George Ringham). Some thirty finely-flowered plants were shown. Silver Banksian medal.

The Orchids from Messrs. Stanley and Co., Southgate, N., included Cattleya Mossie reinckiana, C. Leopoldi x C. intermedia (natural hybrid), Miltonia vexillaria var. cobbiana, Odontoglossum citrosomum, O. crispum vars., and Cattleya gaskelliana. Silver Flora medal.

Lælio-Cattleya Martinetti, L.-C. canhamiana, C. Mossie Wageneri kermesina, several varieties of Miltonia vexillaria, Trichopilia crispata var. Champatreux's, Cologoya speciosa, Vanda Parishii, Pescatorea cerina, and Anguloa uniflora aurea were notable plants in the group from Messrs. Sander and Sons, St. Albans. Silver-gilt Flora medal.

NEW ORCHIDS.

Sophro-Lælia lola orpetiana.—A very handsome flower some 3 inches across, of deep rose colouring throughout sepals and petals. The lip has more red in it, and the throat is yellow. The shape of the flower is that of *Sophronitis*. It is the result of a cross between *S. grandiflora* and *Lælia pumila dayana*. Shown by Captain Holford, C.I.E., Tetbury, Gloucester (Orchid grower, Mr. Alexander).

Lælio-Cattleya King of Spain.—A handsome flower with broad, soft, lilac-rose petals and narrow sepals of a similar shade. The lip is large and open, rich purple with lemon-yellow throat. From Messrs. James Veitch and Sons, Limited, Chelsea. First-class certificate.

Epi-Lælia vitell-brosa.—A bi-generic hybrid, as its name denotes. The margins of the orange-coloured sepals and petals recurve so much that they meet, making the latter appear quite narrow. The long, open lip is cream-coloured, veined at the edges with purple-red. From Sir Trevor Lawrence, Bart. Award of merit.

Epidendrum radico-vitellinum.—This hybrid Epidendrum has rich orange-red coloured flowers, and borne, as they are, in a loose bunch, they prove very striking. From Sir Trevor Lawrence, Bart. Award of merit.

Odontonia Laviesse.—This curious flower is the result of crossing *Odontoglossum crispum* with *Miltonia Warcewiczii*, and it partakes largely of the latter parent. The sepals and petals are narrow, with crimped margins, and the lip is broad and large. Throughout the flower is marked with pale purple upon a white ground. Shown by M. A. de Laviesse, Schlessin bei Liege, Belgium.

A cultural commendation was given to a plant of *Lycaste Depelei* very finely flowered from Sir J. Edwards Moss, Bart., Thamesfield, Henley-on-Thames (gardener, Mr. H. G. Luckhurst).

Dendrobium dalhousianum Fir Grange var. was sent by W. A. Biney, Esq., Cypripedium lawrenceanum hyeanum Bank House var. from R. Briggs-Bury, Esq., and C. Sanders (a new species closely allied to C. concolor) from F. Wellesley, Esq., were other Orchids shown.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. Joseph Cheal, W. Bates, S. Mortimer, Alex. Dean, E. Beckett, George Keif, Horace J. Wright, G. Reynolds, F. Q. Lane, J. Jaques, J. McIndoe, G. Norman, Owen Thomas, A. H. Pearson, and H. Parr.

A cultural commendation was given to Strawberry British Queen, shown by Mr. E. Beckett, gardener to Lord Aldenham, Elstree, Herts.

Strawberry Kentish Favourite, a large, irregularly-shaped fruit, was shown by Mr. Walter R. Pierce, St. Dunstan's Nurseries, Canterbury.

A vote of thanks was given to Tomato Trent Beauty, shown by Mr. H. Parr, Trent Park Gardens, New Barnet.

Melon Bawdsley Hero, a green flesh variety, was shown by Mr. F. Fulford, Bawdsley Manor Gardens, Woodbridge, and an unnamed white flesh seedling was sent by Mr. James Crook, Forde Abbey Gardens, Chard.

A silver Knightian medal was awarded to the Governor of West Australia for a collection of West Australian Apples, specimens of wood, and other of the colony's products. Apples Dumelow's Seedling (Wellington), Jonathan, and Dunn's Seedling were well shown.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. H. B. May, George Nicholson, C. T. Drury, R. Dean, J. W. Barr, Edward Mawley, W. J. James, W. P. Thomson, William Cuthbertson, Charles E. Shea, R. C. Notcutt, Charles E. Pearson, Charles Jefferies, George Gordon, Charles Dixon, W. Bain, C. R. Fielder, C. J. Salter, J. T. Bennett-Poë, James Walker, E. T. Cook, E. H. Jenkins, George Paul, H. J. Jones, R. W. Wallace, R. Hooper Pearson, C. Blick, W. Howe, J. Jennings, and the Rev. F. Page Roberts.

Hardy flowers from Messrs. Barr and Sons were quite a feature, the group including many Irises, Peonies, Ixias, and other things. The Peonies were quite a representative gathering. Irises of the Spanish section and others were plentiful. Some trays of Water Lilies in the cut state were also staged, and quite an array of Ixias in red, scarlet, green, and other shades.

Quite one of the best exhibits was a set of four vases of the improved forms of *Anchusa italica*, the flowers being of large size, and the whole bearing of the plants superior to the well-known typical plant. These were shown by S. B. Fortescue, Esq., Drogheda, Bucks.

A most attractive exhibit of well-fruited examples of *Nertera depressa* came from Mr. Richard Anker, Napier Road, Kensington. There were some seven dozen plants in shallow saucers, all well fruited and in excellent colour. Alpines and dwarf rock plants with cut herbaceous hardy flowers were freely shown by Messrs. J. Feed and Son, West Norwood, S.E. Cobweb House Leeks were plentiful, and always attract.

Messrs. Kelway and Son, Langport, set up a sumptuous array of Peonies, Delphiniums, and Pyrethrums. The first and last of these had obviously suffered from the wet to some extent. At the same time the Peonies were remarkably fine, and in their single and double forms constituted quite a feast of these flowers. The varieties, too, were arranged in sensible bunches. Some good Delphiniums were shown. It was a good show of some popular hardy flowers. Silver Banksian medal.

A table of flowering plants from Messrs. Cutbush included *Marguerite Queen Alexandra*, *Calla elliptica*, *Verbena Miss Willmott*, and the new *Verbena The King*.

Probably one of the most interesting groups on this occasion was that of choice shrubs from Messrs. Veitch and Sons, Limited, Chelsea. This included the pure white and true *Cistus ladaniferus*, *Osteomeles anthyllifolia*, with white starry flowers and pinnate leafage; a glorious example of *Cornus Kousa*, quite a sheet of its white petals; *Carpenteria californica*, with snow-white blossoms; *Grevillea sulphurea*, and *Magnolia Watsoni*. Silver-gilt Flora medal.

Messrs. J. Cripps and Son, Tunbridge Wells, staged on the floor a very fine lot of Acers, some of the more important identical with those shown at the Temple recently. The variety was very great, and we do not attempt to individualise when all are good and have so recently been reported.

An excellent group of stove and greenhouse ornamental plants came from Mr. L. R. Russell, Richmond, and included *Crotons*, *Alocasias*, *Ixoras*, *Nepenthes*, *Draenas*, and other such things. Aralias, too, were very pleasing in the arrangement.

A very effective lot of Roses came from Messrs. George Cooling and Sons, Bath. Masses and bold groups in vases constituted the arrangement, and with a free interspersing of cut sprays of the rambler kinds a good effect was secured. Silver-gilt Banksian medal.

Messrs. Veitch and Sons, Limited, Chelsea, filled an entire table with the Malmesbury Carnations in pots. We noted *Nautilus*, *Albion*, and *Lady Grimsdon* as very fine, the two last named noteworthy for strong perfume. Probably one of the most shapely is *Lady Rose*, a pink-flowered kind with good calyx. Some twenty or more sorts were shown. *Primula sikkimensis* and the new *P. cockburniana* from Western China were included in the exhibit.

Messrs. Frank Cant and Co., Colchester, staged an admirable lot of Roses in large vases, conspicuous being *Lady Roberts*, *Papa Gontier*, the single copper-coloured

Miss Willmott, *Marquis of Salisbury* (crimson), *Gustave Regis* (deep cream), and the single white-flowered *Una*. Silver Banksian medal.

Messrs. H. Cannell and Sons, Swanley, filled a long table with *Gloxinias* and hybrid *Columbines*, the latter in remarkable variety and exceedingly graceful and pleasing. *Kalanchoe fulgens* and *Lonicera hildebrandiana* were in good bloom. Bronze Flora medal.

The table of *Streptocarpus* from Lord Aldenham, Elstree (gardener, Mr. E. Beckett), was one of the features of the meeting. The group was arranged in blocks of colour. The plants, which were admirably grown throughout, evidenced a strain of the highest merit. Silver-gilt Banksian medal.

Mr. Amos Perry, Winchmore Hill, had a large exhibit of hardy plants in the cut state. *Heucheras*, *Tropæolum polyphyllum*, white *Dictamnus*, *Armeria plantaginea splendens*, *Lilium monadelphum*, *Ornithogalum pyramidale* (white), *Campanula persicifolia*, and many more made a very handsome group. Silver Flora medal.

Mr. M. Prichard, Christchurch, Hants, contributed hardy plants, such as *Peonies*, *Pyrethrums*, *Achillea alpina*, *Dianthus superbus* (a bluish-flowered, heavily-fringed kind), &c. Silver Banksian medal.

Roses from Mr. George Prince, Oxford, were very prettily displayed, the rich yellow *Harrisoni*, *Paul's Single White*, *Papillon*, the Austrian *Copper*, *Aglaia*, *Lady Roberts*, and the *Marquis of Salisbury* being conspicuous.

A small, well-grown group of *Gloxinias* and *Calceolarias* came from J. A. Young, Esq., West Hill, Putney, the plants exhibiting good culture and an excellent strain. Bronze Banksian medal.

Peonies and Roses, with *Malmesbury Carnations*, formed the chief item of an exhibit from Mr. Charles Turner, Slough. Of the *Roses Bessie Brown* was good, also *Uster*. The *Peonies* were mostly single-flowered varieties, and very good.

Carnations came from Messrs. H. Low and Co., Enfield, and embraced *Tree* and *Malmesbury* kinds generally. The blooms were displayed in a most effective manner.

Messrs. T. S. Ware, Limited, Fitcham, also showed *Tree Carnations*, the pink flowered *Leander* being most conspicuous in this group.

Sweet Peas were charmingly staged by Mr. Henry Eckford, Wem, Salop. A large number of kinds were set up, but the chief attraction centred in the new orange-flowered *Henry Eckford*, the standard being very large and conspicuous. Silver-gilt Banksian medal.

Mr. H. B. May, Elmington, staged *Ixoras* in several leading sorts as *Prince of Orange*, *Westli* (pink), *Fraserii* (fine pale orange), and *Williamsii* (red orange). Silver Flora medal.

Messrs. Paul and Son, Cheshunt, contributed a group of garden and other *Roses* in many fine kinds. *Polyantha grandiflora*, *Mrs. Grant*, *Una*, *Lady Battersea*, *Carmine Pillar*, *Gustave Regis*, *Mme. Percy*, and *sinica Anemone* were among the best. Silver Banksian medal.

An excellent lot of garden *Pinks* came from Mr. B. Ludhams, Shirley, Southampton. The exhibit was one of the largest we have seen, and all classes of the *Pink* were well represented.

Mr. R. C. Notcutt, Woodbridge, showed hardy flowers very finely; *Peonies*, *Gaillardias*, *Poppies*, *Irises*, *Heucheras*, *Larkspurs*, *Thalictrums*, *Tritomas*, *Columbines*, and others being noted.

Messrs. Bakers, Wolverhampton, had a fine group of the long-spurred *Columbines* in much variety, the varieties being disposed in a pleasing manner. *Zonal Pelargoniums* were also from this firm. Silver Banksian medal.

Notes of the exhibits from Messrs. Wallace, Bunyard, Bull, Bath, Douglas, G. Yeld, Ware, Cheal, and B. R. Cant are unavoidably held over until next week.

NEW PLANTS.

Each of the following received an award of merit: *Impatiens Holsti*.—A compact-growing plant with deep orange-scarlet flowers of florin size, very showy. Fr. m. Messrs. Cannell and Sons, Swanley.

Streptocarpus Royal Purple.—This is a grandly coloured variety, and the name is descriptive. From Lord Aldenham, Elstree (gardener, Mr. E. Beckett).

Sweet Pea Henry Eckford.—A fine variety with orange-scarlet flowers of excellent form and fine proportions. From Mr. Eckford, Wem, Salop.

Peonia Her Grace.—A large double-flowered variety of a pink shade of colour which is very pleasing.

Peonia La Fiancée.—A double white variety, very handsome. These two were from Messrs. R. H. Bath, Wisbech.

Petrea volubilis.—A climbing plant, with drooping racemes of blue flowers, came from Sir Trevor Lawrence, Bart., and was awarded a cultural commendation.

Hemerocallis corona.—This is said to be a cross between *H. flava* and *H. aurantiaca major*, the colour leaning to the latter, but the flowers are not so large. It is obviously a free-flowering variety.

Iris Neptune.—A bold and showy *Flag Iris*, the standards of a clear azure blue, the falls of a more violet tone, with purplish base and bronzy reticulations. Both these plants were from G. Yeld, Esq., Clifton Cottage, York.

Rodgersia pinnata alba.—A white-flowered variety of this excellent plant which is suitable for a moist spot or for water-side gardening in a shady place. The foliage is very handsome. From Messrs. Veitch and Sons, Limited, Chelsea.

Aster sub-ceruleus.—A very showy and attractive border plant of about 2 feet high; ray florets bluish mauve, flower-heads 2½ inches across. This fine plant was shown by Mr. Amos Perry, Winchmore Hill.

*. The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN

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THE PROTECTION OF SWALLOWS.

A MOST important subject, to which we are glad to call the attention of our readers, was brought to the notice of the recent International Ornithological Congress under the section for the consideration of the protection of wild birds. M. Herbert Gans, a Swiss naturalist, deplored the wholesale destruction of swallows in the South of Europe, especially in Italy, which has resulted in a very perceptible diminution in the number of these summer visitants to the countries further north. It has not escaped the observation of bird-lovers even in England that of late years swallows and their close allies, swifts and martins, have not been so numerous in districts where once they were plentiful. The thanks, therefore, of all who are interested in the preservation of bird-life are due to M. Gans, who took the trouble to come over to attend the congress mainly for the purpose of inducing England to join the International Convention for the Protection of Birds useful to agriculturists. France, Germany, Austria, and Sweden have already joined, and it is hoped that if England should think it worth while to countenance the movement, Italy may also be persuaded to follow the good example of the other nations. It is much to be desired that England, not merely for the sake of any influence she may be able to exert, but in her own interests, should join this laudable convention.

Swallows, though they may not at first thoughts seem to have much to do with the work of the agriculturist, nevertheless indirectly take their full share in the economy of Nature, and are amongst the most innocent as well as the most useful of birds. They are entirely insectivorous in their habits, and can never be accused of taking toll by the way from orchard or farm. It is true that they do not feed, like the finches and tits, upon the predatory grubs and caterpillars which infest field and garden and by which but for their aid our crops would be destroyed. The mission of these children of the air is perhaps more important still. Mosquitoes, gnats, midges, all more or less tormentors of mankind, fall a prey to the ceaseless activity of the swallow, and since

science has discovered that many malignant fevers and mortal sicknesses are conveyed by such insect agency to human beings, we, of all nations, with our Imperial interests in every clime, should join hands with those who are doing their best to protect the friendly birds which act as our preservers from very real dangers.

Nor does the usefulness of swallows end with the demolition of the mosquito tribe, for while they skim so lightly overhead and delight us with the grace of their flight, who can estimate the number of the myriads they consume of the smaller moths, butterflies, and other originators of the crawling hordes against which agriculturists and gardeners alike wage incessant war?

The wholesale destruction of these migrants in any one country is certain in the long run to diminish their number, it may be even to extinction, not only in Europe, but in all parts of the globe where they congregate.

Amongst European countries Italy more especially should be in the forefront to protect all kinds of swallows, for much malarial land which is the breeding ground of virulent insect life still exists within her borders. Doubtless, now that public opinion is being directed to the subject, and in view of the increased impetus lately given to agricultural improvement, the Italian Government will awake to the absolute necessity of protecting bird-life in all its forms. We English have taken steps in the right direction for some time, and possibly may now have to take care that we keep the balance true. On the Continent, Austria for years past has led the way in the protection of small birds, and visitors to Tyrol will call to mind the many contrivances placed in gardens to encourage nesting in the neighbourhood of dwellings. France and Italy, on the contrary, have been the most careless in this respect, but we had thought heretofore that swallows, even in Italy, had been excluded from the list of game birds. The scream of innumerable swifts crossing and recrossing in mid-air beneath the blue canopy of an Italian sky is one of the happy recollections of bird-life in Florence, in contrast to strings of dead robins and tits awaiting the ready purchaser in the markets. In Germany one can scarcely wonder that the larger fruit-eating birds, which so mercilessly rob the vineyards, should pay the

penalty of their crime by appearing regularly at the tables d'hôte. But swallows touch neither Grape nor Fig, and are wholly beneficent. Let us hope, therefore, that M. Gans' intercession on their behalf may be the means of giving them a new lease of happy existence for themselves in particular, no less than a profitable one for the nations in general. The world would be bereft indeed of good incalculable without the swallows.

THE ANNALS OF THE LITTLE RED HOUSE.

THE PERGOLA.

THERE should always be a good reason for the making of a pergola. Sometimes this is placed irrespective of desirability or use, when, instead of adding to the beauty of a garden, it actually detracts from it by shutting out a view, or obstructing the necessary light of the sun. Where you wish to divide portions of the garden, and where trees are already planted, and sending down shade-giving branches, there is at once a position for a pergola walk.

Here we found exactly the right position where the orchard ended, and was divided from the new portion we had added to the kitchen garden by a gravel path. An Apple tree hung over the said path, and some young Filberts had been already planted on either side. We decided not to build anything very elaborate or very substantial, as it would not suit the comparatively simple form of the rest of the garden, so we determined to make our pergola out of a series of rustic arches connected by cross pieces, and trust to the entwining of various creeping and climbing plants for the ultimate binding together of the whole fabric.

The existing path was about 40 yards long, opening on to the herbaceous border at one end and terminating at a hedge at the other end. It was about 3 feet 6 inches wide, and the borders were about as wide again. One of these borders separated the orchard from the path, and the other bounded the kitchen garden. The borders we devoted to such plants as love partial shade, and to the many charming things that bloom in the spring, and need protection.

The young Filberts had been planted at intervals of 10 feet, evidently with the intention of making a Nut-walk. These we decided to retain, at any rate for the present, as aids to the climbers, and we found them of great use, the Honeysuckles and Clematis delighting in clinging to their twiggly branches.

Having made a rough design, we bought from a neighbour who had been thinning his plantations, about 200 Oak and Ash poles. These woods are the best for out-of-door work, as they are less liable to rot than other sorts. Willow, too, will answer the purpose, but the best of all is Oak. Larch is not good, and you should never use Alder. We know of a pergola which was made chiefly of Larch and Alder; in three years it became rotten and fell to pieces.

Out of one store of poles we selected pieces of Oak 8 feet in length and 4 inches or 5 inches in diameter, and set them up along each side of the border at intervals of 4 feet apart. These supports were let into the ground about 8 inches or 10 inches deep, first dipping the ends in tar. The posts were eventually strengthened by strong wire stays—a very necessary precaution, since all the weight of the roofing poles hung on these.

The two rows of uprights were 7 feet apart, and along the tops of these we fixed a double row of Ash poles, selecting those that were 3 inches in diameter, tapering to 2 inches. The overlapping ends were firmly lashed together with galvanised iron wire. At each Oak upright we placed cross-pieces of Oak about the same stoutness as the uprights, and at each 4-foot interval between the cross-pieces we placed two thinner poles of Ash diagonally, so that they crossed each other in the centre of each space; and all these pieces we bound together with iron wire, finishing very neatly and sawing off the ends evenly.

I believe it to be a great preservative in a damp climate to wash all outdoor woodwork over with "Rusticol." It prevents the bark shedding and the formation of destructive fungi.

Having completed the pergola, we remade the gravel path and the borders, and chose the creepers we thought would be most useful for the purpose. We got together a nice variety, selecting in the first place the Crimson Rambler and Penzance Briars for rapid growth and luxuriance of foliage. To these we added a selection of climbing Teas, climbing Captain Christy, climbing Kaiserin Augusta Victoria, the old-fashioned Devonensis, Belle Lyonnaise, Mme. Alfred Carrière, and filled in with various Honeysuckles and Clematis, not forgetting Clematis montana, and at the further end a few Hops.

At the entrance from the garden a young Laburnum was already well established, so to this we united a Wistaria, hoping for the mingling of their charmingly contrasting flowers at no very distant time. But alas! the Wistaria perished the following winter.

As it was late in the summer when the pergola was completed, most of the creepers were bought in pots, and turned out without breaking the earth, and they did most satisfactorily. The ramblers and Penzance Briars have already covered a great part of the pergola. In the border beneath a regiment of Madonna Lilies increase in strength and beauty year by year, and in the partial shade they love bloom grandly, retaining, too, their pretty foliage. The adjacent orchard, with its mass of wild, flower-starred herbage, is charming seen through the rustic windows of the pergola, and the Roses mingling with the Apple boughs, over which they throw their long arms lovingly, are delightful.

Pillar Roses are always beautiful and decorative, and half-a-dozen of these on a light arch constructed of as many Oak poles, the roof being spanned, is never amiss,

always providing there is a good reason for an arch; and if you plant *Lilium candidum* under these arches you will be delighted with the result. Lilies and Roses are a theme for poet and painter and gardener alike, and it is a theme that can hardly be too often repeated. The Rambler Roses bloom at the same moment as the Lilies, and nothing can be more exquisite than the pure white of the Lilies under the rich crimson of the Rambler Roses. Or Dorothy Perkins and the Blush Rambler could be employed instead, and it would be an equally charming combination. AUGUSTA DE LACY LACY.

PRIZES FOR GARDENERS.

AWARDS IN THE MAY COMPETITION.

THE first prize of four guineas for answers to the questions published in *THE GARDEN* during May is awarded to Miss M. Agar, Hilly Mead, Wimbledon.

The second prize of two guineas is won by Mr. Douglas L. Freeland, Delamere, Snodland, Kent. Mr. H. B. Gaukroger, Woodcote, Fairdene Road, Coulsdon, Surrey, wins the third prize of one guinea.

Dr. Cecil A. P. Osborne, The Grove, Old Catton, Norwich, wins the fourth prize of half-a-guinea.

The competition was very keen, and it has been a matter of considerable difficulty to decide the four prize-winners. Miss Agar made fewer mistakes, and her plan is one of the best, although her paper is less descriptive than Mr. Freeland's. His written matter was excellent, his plan good, but he confined his selection of Roses for climbing over trees to the Ayrshires, and misunderstood questions five and six. Mrs. Gibson (amongst the commended) would have been in the prize list, but her plan spoilt an otherwise excellent paper, if the slip of calling Caroline Testout flesh colour be excepted. Colour generally seems to be a weak point with rosarians. Several call La France and Mme. Jules Grolez light red, and there was a tendency to mix flesh with cream or yellow. It was the opinion of the majority of the competitors that a Rose of the Rugosa class would best suit the purpose for the exposed hedge—Blanc Double de Coubert receiving most votes. The plan seems to have been the stumbling-block with many; in fact, not a few did not attempt a plan, and contented themselves with drawing nine square beds.

In addition to the prize-winners the following deserve special commendation: Mrs. E. P. Mack, Mrs. F. Gibson, Constance Spalding, B. Thomasset, A. Osborn, A. D. Christie, C. E. Adams, C. W. Canefield, E. M. Blackburn, and G. Ellwood.

The first prize essay, with plan of the sunk Rose garden, is published on another page under the heading of "The Rose Garden."

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

July 3.—Maidstone Rose Show.

July 4.—Royal Horticultural Society's Meeting and National Sweet Pea Society's Show; Sutton Rose Show.

July 5.—Hanley (two days), Tunbridge Wells, Brockham, Chippenham, Croydon, Ealing, and Hereford Rose Shows.

July 6.—National Rose Society's Show, Botanic Gardens, Regent's Park; Sudcup Flower Show.

A coloured plate of a new Orchid (*Cymbidium Sanderi*) will be given with *THE GARDEN* next week.

Royal Horticultural Society's examinations.—The society's annual examination in the principles and practice of horticulture will be held on Wednesday, March 28, 1906. The society is willing to hold an examination wherever a magistrate, clergyman, schoolmaster, or other responsible person accustomed to examinations will consent to supervise one on the society's behalf, and in accordance with the rules laid down for its conduct. A copy of the syllabus, covering both examinations, will be sent to any person on receipt of a stamped and directed envelope. Questions set at the Royal Horticultural Society's examinations, 1893-1905, may also be obtained at the society's offices, Vincent Square, Westminster, price 1s. 9d. The Royal Horticultural Society will hold an examination in cottage and allotment gardening on Wednesday, April 11, 1906. This examination is intended for, and will be confined to, elementary and technical school teachers.

Examinations in horticulture and cottage gardening.—The annual examination in the principles and practice of horticulture was held on April 12 last, when 160 papers were sent in. Three hundred marks were allotted as a maximum, all candidates who obtained 250 marks and upwards being placed in the first class. The total number of these was twenty, or 12.5 per cent. of the whole. Those who secured 200 marks and less than 250 were placed in the second class. The number was sixty-seven, or nearly 42 per cent. Those who obtained 100 marks and upwards were placed in the third class, the number being seventy-one, or nearly 44.4 per cent. Three only were not placed. There has been a continuous decrease in the number of candidates since the council adopted a more advanced syllabus, as there were 229 in 1902, 198 in 1903, 190 in 1904, and 160 in 1905. The highest marks (290 out of a possible 300) were obtained by Miss A. I. Tate, Lady Warwick College, Studley Castle; P. Murrell, University College, Reading, being second, with 280; and G. E. Villiers-Stuart, Horticultural College, Swanley, third. With reference to the examination in cottage and allotment gardening, the examiners report: "After a careful perusal of the 139 papers returned from the various centres, the examiners have much pleasure in reporting a distinct advance in the answers pertaining to the practical treatment of cottage and allotment gardens in general as compared with those of the previous examination in 1904. It is worthy of note that the candidate who this year comes out head of the first class was last year only able to obtain a second class." The highest marks (198) were gained by J. W. Hardy, Grundisburgh School, Woodbridge; G. A. Taylor, Lovejoy, St. Peter's, Kent, and A. W. Bartram, School House, Totternhoe, Dunstable, were second and third with 196 and 195 marks respectively.

Hardy flowers at Fir Grange.—Having watched the development of Mr. Bilney's garden from the commencement, I was naturally pleased to read the graphic description of it in a recent issue of *THE GARDEN*. In Mr. Bilney's garden one gets an illustration of what determination to conquer natural obstacles may effect. For moisture-loving things it is about as unfavourably situated as any garden can be. At Wisley there are natural advantages in the Oakwood which forms the lowest portion thereof; there is even in the hottest season a latent moisture which exercises a wholesome effect on such things that refuse to take on perennial vigour when liable to be subjected to occasional periods of heat and drought. At Fir Grange only the shade exists, the hardy flowers have to be grown in the highest portion of the garden, the soil is of the description that cannot hold water for any time, and to make matters worse the place is bordered by a deep cutting of the South Western Railway, which, of course, acts like a big drain. In such circumstances,

It will be admitted that it is little short of a triumph that such moisture-loving things as *Mertensia virginica*, *Primula japonica*, the *Hellebores*, &c., which dread heat and drought, should be induced to give a true idea of their worth. Much good work has been done in a comparatively short time at Fir Grange, and we may take it for granted that this is but a fore-taste of things to come. The owner is one of those men who will not be daunted by failure; it is his try, try again. Like the late Mr. G. F. Wilson, he does not believe in the impossible.—J. CORNHILL.

Water-colour drawings of gardens.—In the Duré Gallery, 35, New Bond Street, there is on view an interesting collection of water-colour drawings of gardens and landscapes by Mr. and Mrs. Albert Stevens. The drawings chiefly represent garden scenes and landscapes in the Riviera and in the Thames Valley. Among the former, one called "Douanier's Hut at Mentone" shows a rustic structure built on the rocky coast, and the rich and beautiful colouring of the Vine leaves which smother the hut is finely reproduced. "Near Chamonix" is a charming scene in a wild garden, and "Flowering Meadows, Chamonix," gives a delightful representation of wild flowers in the fields. Among the scenes nearer home, "The Field of the Flowing Spring, Sonning," shows masses and drifts of meadow flowers in profusion, and "A Silvery Afternoon, Sonning," conveys vividly the quiet charm of the river. "Poppies and Apple Blossom," "Water Lilies," and "Wild Roses" are a few others among many equally good. Flower lovers should not miss seeing this collection of drawings.

The late Colonel Webb, M.P.—A long account of the life of the late Colonel Webb, of Messrs. Webb and Sons, Wordsley, Stourbridge, appears in the *County Express*. Reference is made to the business, political, and social career of the late member for the Kingswinford Division of Staffordshire. Colonel Webb, who, by the way, held the Volunteer officers' decoration for long service, joined the 1st V.B. South Staffordshire Regiment in 1873, having the good fortune to be immediately gazetted to the command of the Wordsley Company. Into his Volunteer work Colonel Webb put his heart and soul, and was exceedingly popular with all ranks. It was due chiefly to his energy that the Wordsley Drill Hall was built, and it was "Captain W. G. Webb" who laid the foundation stone in June, 1884. In the same year Lord Lewisham (now Lord Dartmouth) retired from his majority in the regiment, and Colonel Webb received his step, and in 1893, when he retired from the battalion as second in command, he was granted the honorary rank of Lieutenant-Colonel. The late Colonel Webb will be chiefly remembered politically for two traits—his invariable *bonhomie* and the reliance which the party whips could always place upon his vote and support, no matter at what personal cost to himself. As a supporter of the Government, he was always to be depended on, and his services, it is known, were noted in the highest quarters, and had he lived there is every probability that they would have received an official recognition. For many years he was one of the pillars of the Conservative cause in the Kingswinford division, and was also a prominent supporter and worker in the interests of the party in the adjacent division of Mid-Worcestershire and in the borough of Dudley.

Colonel Webb was one of the men whom the House of Commons helped to kill. What makes that sad fact the sadder is that he never had the least desire to enter Parliament, and only went there under that pressure from political friends which is so often the kindness that kills. He never allowed anything to interfere with what he considered it his duty to do, or with the calls of business; and though he

was possessed, I have heard, of a vast fortune, he drugged at his work to almost his last hour, as if he hadn't a shilling. He belonged to that race which always astounds me—the race of men who catch newspaper and milk trains in the ghastly hours of early morning. He gave to the House of Commons that grim, iron, tenacious attention which he gave to everything else in which he was interested. Men like him—silent, unobtrusive, modest—are of the best of the Parliamentary party, for it is their sense of duty, their fierce persistence in attendance, their unspoken loyalty which make up for the carelessness, the want of heart, the want of courage, the want of tenacity, which are the characteristics of the majority of human beings, including the human beings that are members of Parliament.—T. P. O'CONNOR in *M. A. P.*

Fruit prospects in the North.—So far as can be ascertained at present, there is every appearance of a good crop of the various fruits cultivated in and about Blairgowrie and other districts of Perthshire. The frosts, which did so much damage further south, have inflicted little here, and the prospect of good prices adds to the cheerfulness of the outlook for the Perthshire fruit growers. Raspberries, although not entirely free from the ravages of the borer, are promising. Strawberries are also likely to give good crops, provided favourable weather ensues, as they were uninjured by frosts, and good prices are likely to be obtained. Black, Red, and White Currants also look well, and Gooseberries look like yielding an excellent crop. The tree fruits grown in the district are likely to prove satisfactory also; there has seldom been a better prospect before the fruit farmers and others who devote so much attention to this valuable and increasing industry.

Prospects of Clydesdale fruit growers.—Unfortunately the season's prospects for the extensive and increasing fruit growing industry of Clydesdale are not so promising as was the case a short time ago. A dry period which set in in May, and lasted until well into June, has materially affected the probable yield of many crops. The soil became quite hard and dry. Thus early Strawberries will be a small crop, the berries being small, and of inferior quality. Others will also suffer to some extent. Apples are also likely to be a small crop, and this will make an appreciable difference in the returns for the year. This is one of the leading crops, many orchards being of large extent. Gooseberries and Plums, both important crops, are also small in their yield, and the only redeeming feature is the higher prices which are being offered for the crops of the season.

Rhododendrons in Hyde Park.—Many are familiar with the grand display made by Rhododendrons in Rotten Row, supplied from the nurseries of Mr. Anthony Waterer at Knap Hill, Woking. When these notes were taken the fine specimens were in full flower. To lovers of hardy Rhododendrons it may prove of practical service to put on record the names of some of the best varieties. *Crimson and scarlet.*—H. H. Hunnewell, dark rich crimson, splendid truss; John Watts, also a rich crimson; Meteor, fiery crimson; J. Marshall Brooks, rich scarlet, with a bronze spot, distinct; Frederic Waterer, crimson, very showy. *Pink.*—Mrs. Arthur Hunnewell, pink, primrose centre, very pleasing; Concessum, clear pink, light centre, a beautiful variety; W. E. Gladstone, fine truss. *White and blush.*—Delicatum, blush, changing to white, brown spots; Mme. Carvalho, blush, changing to pure white; Helen Waterer, centre white, edged with crimson; Duchess of Connaught, white, yellow spots, very showy; Picturatum, cream colour, with a chocolate blush, distinct and very showy; Sappho, white, distinctly blotched with maroon; The Queen, blush, changing to white, fine shape. *Rose.*—Stella, pale rose, with an intense chocolate blotch; Mrs. W. Agnew,

pale rose, yellow centre; Everestianum, rosy lilac, spotted and fringed, an excellent free-blooming sort; Kate Waterer, rose, yellow centre, very showy; Marchioness of Lonsdowne, pale rose, with an intense black spot, one of the most distinct and beautiful varieties; Lady Eleanor Cathcart, pale rose, spotted chocolate. *Plum colour.*—Baron Schroeder, plum colour, yellow centre. *Mauve.*—Fastuosum flore pleno, immense trusses of double flowers. *Rich dark lake.*—Joseph Whitworth, a fine spotted flower. *Salmon.*—Mrs. R. S. Holford, rich salmon, having large and beautiful trusses.—Quo.

Kelway's "Manual of Horticulture."—Messrs. Kelway and Son, The Nurseries, Langport, have sent their excellent "Manual of Horticulture," which is one of the most interesting and practical catalogues—if such it may be called—we have seen for some time. There are 360 closely-printed pages, relieved by many beautiful illustrations, not only of the firm's many well-known novelties, but of borders arranged for colour, hardy plants grouped in bold and picturesque ways, and cut flowers in simple bowls. It differs from many trade publications in giving thoroughly sound advice on the culture of perennials and vegetables, and the selections throughout are very wisely made. Many pages are devoted to the firm's specialities—Kelway's Imperial Pæonies, as an example, Delphiniums, Pyrethrums, Gladioli, and such like. It is a most useful guide, and very tastefully produced.

The late Charles Moore.—In the Sydney (N.S.W.) *Daily Telegraph*, there is a long illustrated account of the career of the late Charles Moore, director of the Botanic Gardens, Sydney, from 1848 to 1896, whose recent death was referred to in THE GARDEN. "Many plants with which cultivators in New South Wales are now quite familiar were introduced to New South Wales during Mr. Moore's long period of office. During the first half century of the Sydney Botanic Gardens, the export of Australian plants and seeds to Europe was incessant, and the cases were returned with plants, rare and otherwise, from all parts of the world. Thus it was that in the early days the marvellous collection of plants was got together with but little expense. During Mr. Moore's early years of office, Australian botanical novelties were still abundantly available, and this exchange of living plants was continued to an extent that is no longer profitable."

"Plants of the Bible."—At the meeting of the Royal Horticultural Society last week the Rev. Professor Henslow, M.A., V.M.H., delivered a lecture on "The Plants of the Bible," which he illustrated with a remarkably fine series of lantern slides. He pointed out that about 120 plants were mentioned in the Bible, which could be grouped as textile materials, medicinal, edible, and other herbs; plants used in the arts, flowers, odorous resins, spices, and perfumes; fruit, timber, and other trees; and desert, field, and water plants. Of the textile plants, Flax was used for lamp-wicks as well as for fine linen; but Cotton was only once mentioned in Holy Writ. The herbs included Mint, Rue, Dill, Cummin, and Coriander, and bitter herbs. Camphire, Madder, and Saffron were among the plants used in the arts. The lecturer pointed out that very few plants were mentioned in Scripture for the sake of their flowers only, and they were largely of the Lily or Rose tribe. Of esculent herbs, Lentils formed the substance of Jacob's pottage, and Beans, Gourds, and Garlic were used as vegetables. Egypt still grew the same varieties of Wheat as of old, and Barley, Rye, and Millet were also found mentioned. The odorous resins and perfumes were used principally for making incense and holy oil, including frankincense, myrrh, balm of Gilead, spikenard, and calamus. Among the fruit trees, the Vine, Pomegranate, Almond, Olive, Fig, and Apple were mentioned; and Cedars, Firs, Cypressess, Oaks, Poplars,

Ebony, Box, and Myrtles were almost all the timber trees referred to in the Bible. The water plants included the Bulrush or Papyrus; this was the most important, and was not only used for making the first paper, but also for baskets and boats, including, probably, the ark of Moses. The next exhibition of this society will be held on Tuesday next, in conjunction with which the National Sweet Pea Society will hold their annual exhibition, and the date falling on Independence Day, Professor Webber (of Washington) will contribute a paper on the "Progress of Horticulture in the United States."

WORCESTERSHIRE NOTES.

PEONIES.

IN May the Tree Peony is usually at its best, and this year I have seen some very fine plants. One of the most remarkable points about these plants is their longevity. Once they become established in a situation which is congenial to them there is no other group of plants to excel them in splendour. In the southern counties it is not uncommon to see very large bushes of them, and in districts where they are safe from spring frosts they are quite happy. Their hardiness has never been called in question, but the frequent mildness of our winters starts them into early growth, and one night of hard frost in March or April often destroys their bloom for the season.

Geum speciosum is in bloom here for the first time. This plant was discovered by the late M. Alboff on one of his journeys to the Caucasus, and I received it in March, 1903, from Mr. William Thompson, whose death was so greatly regretted by all hardy plantmen. This *Geum* is not remarkable for its beauty, though it is decidedly distinct. It is the only species I am acquainted with which disappears entirely in the winter, not a trace is to be seen of it. The flowers are clear yellow, rather small, and borne on stiff, upright, branching stems; twelve to twenty flowers on each stem. The foliage is very distinct and handsome. At present it is too early to say whether this plant is a free seeder. I have fertilised several flowers with the pollen of *G. Eweni* and *G. Heldreichi superba* in the hope of raising some hybrids from it.

Geum Heldreichi superba, which I had from Mr. Perry two years ago, is by far the finest of all the race; in fact, there are few hardy flowers of such a telling orange colour as this. It is well named *superba*, as it far exceeds the older *G. Heldreichi*. At times the flowers have two or three sets of petals, and sometimes they are quite single, but in either case they are much larger than the type. What a fine bed could be made with this as the centre, and *Geum montanum aurantiacum* as an edging around it! The fault of *G. Heldreichi* is its sprawling habit, and if Mr. Perry could give us a variety of it with a habit like *Geum coccineum*, it would be no small gain. Last year I praised

Rosa sinica Anemone, but this year it has been ten times more beautiful. It is one of the most desirable plants for a south wall that I am acquainted with, and, moreover, it is a great deal harder than I had imagined. For some years now I have been seeking

Erodium petraeum far and wide, but with no success. It is described in any French "Flora" that one happens to pick up, it is figured in Wooster's "Alpine Flowers," and there is an excellent engraving of it in *THE GARDEN*, Vol. XXVI., page 185, yet now it is unobtainable, though at one time it was fairly common on the Pyrenees I am told. With it have disappeared several other fine dwarf *Erodiums*, these being *E. munbyanum*, *E. campesianum*, and *E. astragaloides*. My fine plant of *E. chrysanthum* has, I am sorry to say, joined the majority, and, as I have been entirely unsuccessful in propagating it, I have lost it altogether.

The other day I heard a rumour of a white form of *E. chrysanthum*, but so far it has proved a myth—at any rate, I have failed to discover it. *E. chrysanthum* never seeded with me, neither would it strike, and as far as I remember Canon Ellacombe told me that he could not propagate it when I was last at Bitton. I rather believe that Mr. Prichard of Christchurch informed me a few years ago that it seeded with him, but on this point I must still confess myself an unbeliever, as all my numerous correspondents tell me that they have always failed to secure good seed.

Euphorbia Wulfeni.—I was glad to see that the floral committee of the Royal Horticultural Society gave this plant an award of merit a short time ago. Many readers of *THE GARDEN* will remember how enthusiastic the ever-to-be-lamented Mr. Ewbank was over this plant, when it flowered for the first time in the Bath Botanic Garden. Mr. Ewbank very kindly sent me some cuttings of it which he had received from Mr. Milburn, and I have grown it ever since and given it away in plenty. However, it apparently owes me a grudge, for I have never yet persuaded it to flower. My favourite *Euphorbia* is *Amygdaloides variegata*, a rare plant of very beautiful leaf colouring. It makes a neat little bush, and is one of the most desirable plants for a rock garden. Most of the *Euphorbias* transplant easily, and *E. Wulfeni* is no exception to the rule. The immense specimen of it at Bath has been moved several times to my knowledge without injury. It is, however, a slow plant to strike, and the cuttings always take about five or six months before roots are emitted.

Polygonum capitatum.—I have frequently praised this plant as being one of the prettiest to carpet the soil, but this season I have discovered a new trait in its character. The November frost last season, which caught us all napping, killed the whole of this plant before I had taken the precaution of securing cuttings. I thought that it was quite lost, but now to my surprise quantities of seedlings are coming up all over the Rose beds in which it was planted last year. Although I have grown this creeping Knotwort for some years, I have never before known it sow itself in the open ground. Those who want a really pretty plant to fill up the bare places in the herbaceous border left by *Daffodils* and *Crown Imperials* will be grateful to me for introducing this plant to their notice.

Worcestershire. ARTHUR R. GOODWIN.

TREES AND SHRUBS.

RHODODENDRON PINK PEARL.

ALARGE bed of several dozens of bushes of this beautiful *Rhododendron* at Sherfield Manor, Hants, showed when recently seen that it was as hardy as any other hybrid. The plants were just expanding their large heads of bloom, and the bed would in a week or so be indeed a beautiful sight. Probably this is the finest group in the kingdom. All around were large beds of others of the richest dark varieties, and the position an open one, yet in no case had *Pink Pearl* or others been in any way touched by frost, or was there any reason to assume that the variety was not perfectly hardy. The flowers that were expanded were of great size; indeed, evidently double that of most other varieties. D.

I SHOULD like to support Mr. Thorne's testimony as to the hardiness of *Rhododendron Pink Pearl* (see *THE GARDEN*, the 20th ult.). Here in East Yorkshire it is quite hardy, and in a bed of mixed *Rhododendrons* is not only one of the best growers, but the most attractive of all.

F. C. PUDDLE.

The Gardens, Scampston Hall, Rillington, York.

BUDDLEIA GLOBOSA.

THE *Buddleias* form a useful group of shrubs, the majority being of a showy character, and all of them blossoming from June onwards, a time when many flowering shrubs are over. *B. globosa* is the best known of the six or seven hardy species, and has been in cultivation since 1774. In many places fine specimens are to be seen, particularly in the southern counties. It forms, when mature, a large bush 10 feet to 15 feet high, and as far through, with deciduous or often sub-evergreen leaves. The flowers are small, golden in colour, and borne in globular heads, many of these heads forming large terminal panicles. Coming from Chili and Peru it has gained the reputation of being somewhat tender; it cannot, however, be said to be very tender, except when very young and growing fast, then it is sometimes killed during very severe winters. Old plants, however, will stand ordinary winters without injury. When planting it is a mistake to give too rich soil, this only results in rank growth, which does not ripen well. Cuttings root readily in sandy soil in a close case in summer, and seeds come up quickly if sown when fresh gathered. After the flowers are over, bushes should be pruned, removing dead wood and inside worthless branches, reducing other branches where this is necessary. W. D.

PYRUS CRATÆGIFOLIA.

THE genus *Pyrus* contains a large number of our most ornamental flowering trees, many of the species being comparatively common in gardens, others, however, that are equally desirable being very rare. The one under notice must be classed with the latter set, for, though it is a very interesting and extremely lovely thing, it is not often met with. It belongs to the *Sorbus* section of the genus, and is allied to, and somewhat resembles, *P. torminalis* (the Wild Service Tree). *P. cratægifolia* is a native of North Italy, and forms a bush, or at most a low growing tree with Hawthorn-like leaves, which are covered on the under surface with a soft, downy tomentum. The flowers are borne during the early part of June, and are produced in loose corymbs, terminating short, spur-like growths from all parts of the branches, the flower-stalks being very slender, and varying in length from 1 inch to nearly 2 inches. The colour of the blooms is white, and each flower is from half an inch to three-quarters of an inch across. For a specimen plant on a lawn or for a group in a prominent position it is excellent, and is worth looking after by growers of trees and shrubs. In autumn it has a further period of beauty, for the leaves turn to a brilliant orange-scarlet previous to falling. At various times it has been given a variety of names, some of which are *Cornus florentina*, *Cratægus florentina*, *Malus cratægifolia*, *Mespilus florentina*, and *Sorbus florentina*. W. D.

GENISTA CINEREA.

THIS is one of the summer flowering *Genistas*, and one that is worth extended cultivation, being of good habit and very floriferous. It is found in South-West Europe, and forms a large, very spreading bush 10 feet to 15 feet high. It is in many particulars very like *G. virgata* from Madeira, but is of lighter and looser habit with more slender branches, and blossoms a week or two earlier. The flowers are golden in colour, and borne singly from axillary buds, but with such freedom as to transform each branch into a large inflorescence. Like other *Genistas*, it thrives in comparatively poor soil, that of a light loamy texture being most suitable. In addition to other synonyms, this species has been called *Genista ramosissima* and *Spartium cinereum*. At present it is not very well known, but anyone who wishes to judge its merits can do so by going to Kew, where a bed of it may be seen in full blossom near the Tea Pavilion.

W. DALLIMORE.

RIVIERA NOTES.

TREE PEONIES.

SINCE I last wrote I have had the good fortune to come across a great authority on Tree Peonies, and by his courtesy I am enabled to add the following varieties to the list of those that are really robust growers: Athlete and Dumont de Courcet (lilac), Guiseppina, Joséphine Sénécianze, La Ville de Versailles, Mme. Maria Seguenot, and Souv. de Mme. Knorr, all shades of pink and salmon. The reds he recommends are Jeanne d'Arc, Jules Pirlot, Rienzi, Reine Amélie, and Souvenir d'Etienne Méchin, extra good. Nigricans and Princess Amélie are also recommended as very deep and rich in their purple colour, with gold stamens in the middle. With these additions I think any grower of Tree Peonies should find material for beautiful groups.

NEW ROSES.

Wonderful to relate, there are still some new and good Roses to be found among those of quite modern date; not, perhaps, exactly show Roses always, but still showing an advance in freedom of growth and autumn bloom or giving us some new shade of colour. For instance, in the

Hybrid Teas there is Edu Meyer, of Testout growth and habit, but with brilliant coppery rose tones, which reminds one of L'Idéal in colouring, while being quite a full-sized Rose.

Lady Moyra Beauclerc and the very taking Prince de Bulgarie are both advances in salmon-pinks, and most desirable here for winter blooming.

M. J. C. Hill is a vigorous and handsome flesh-coloured Rose that will make a fine bush, but I note that its blooms do not last well when cut.

Of Teas, Sulphurea has proved of great excellence for winter bloom. It is so hardy that even the old Safrano is put on one side, while the fresh sulphur-coloured buds on red, robust stems are of great effect on a winter morning. Hitherto Marie van Houtte was the only hardy straw-coloured Rose in winter, and it has the defect of always hanging its head, whereas Sulphurea is upright and sturdy.

That most lovely yellow Rose Georges Schwartz is sadly tender, and suffers directly the weather is wet; but planted on a dry terrace and in rich, light soil it flowers freely in winter, so it is worth growing by those who know how to treat it.

Soleil d'Or is one of the surprises of modern hybridists, and it proves admirable as a pot plant for house decoration. It also flowers fairly well in autumn, enduring severe pruning for that purpose. It is a most interesting and distinct garden Rose.

Mildred Grant is now recovering from the effects of severe propagation, and this season is making fine growths, just as any other Rose, proving that there may yet be a future for this noble petalled Rose. It is the same thing with Liberty, which at first was so enfeebled by over-propagation, and now is vigorous and free as the old General Jacqueminot.

Frau Karl Druschki is quite the rage here among florists. It is a good autumn bloomer, especially on August-budded plants, and I am told that Berlin florists paid as much as eighteenpence a bloom at Christmas! It is a remarkable addition to winter Roses, and is most effective as a large bush in the

the impression of being a Bourbon, hybridised with Cramoisie Superieure Grimpante, so its well-shaped bright rose-red clusters of flower and glossy, firm foliage, are shown off well on a pillar. It should be a good garden Rose for England, more effective, for instance, than either Longworth Rambler or Mme. Isaac Pereire, both so much used on posts or pergolas. There is one good new Dijon Tea to mention; its colouring is a little unusual, as the outer petals are creamy white, and the centre has a vivid touch of fiery orange in it when well grown, so it is both distinct and attractive. The name, Mme. Hector Leuillot, is not an easy one to English gardeners.

I am almost glad to say that some new Roses with crack-jaw names are not worth growing; it would have been impossible to pronounce them or even spell them properly. Mme. Phillipe and Franz Deegen luckily do not come under this category, and they are both free and vigorous growers, with rich apricot-shaded semi-double flowers that should open well in autumn and winter.

Perle von Godesberg is a richly-coloured sport of Kaiserin Augusta Victoria, which is most beautiful when it does not revert to the type, as it too generally does. It is curious how the perfect yellow Rose is yet unattainable.

Betty Berkeley.—For winter blooming this almost single Tea is worth mention, as it is so hardy and early in growth; but except for midwinter, when there is no other red Rose of Safrano type, it is not of much value.

I wonder how many Rose growers will agree with me when I say that such Roses as Etoile de France, Mme. B. de Bary de Zahony, Mme. Durand, Souvenir de Marie Zozaya are disappointing, and so far not worth growing as desirable novelties!

Two Roses stand out as specially effective and desirable in combination for groups. That wonderfully brilliant copper-red Léonie Lamesch Polyantha Rose looks so well when grouped or edged with the dwarfier Mme. Ravary of somewhat paler tones, and the little Eugénie Lamesch makes a dainty edge if required.

Brilliant though it be, I cannot admire Mme. N. Levavasseur as many do, for its colour is curiously difficult to harmonise with anything else. Perhaps the right combination may yet be found. E. H. WOODALL.



IRISES AND SINGLE STOCKS IN MUNSTEAD GLASSES.

garden, its vigour and freedom are so great. It evidently travels well also; its petals do not bruise easily.

OF CLIMBING ROSES

we have the richly-coloured and long-blooming Noella Nabonnand, the very lovely Apricot and Peach-coloured Souvenir de Léonie Viennot, which is far superior in this climate to any other Rose of its tender colouring, but which I imagine is not a free bloomer except under sunny skies and in sheltered positions; but it is so beautiful it is worth trying anywhere.

Mathilde Lenaerts is a new red Bourbon climber of much vigour and merit; it gives

MUNSTEAD FLOWER GLASSES.

WE received some weeks ago from Messrs. James Green and Nephew some samples of their Munstead flower glasses, and, having tested them with some of the early summer flowers, have pleasure in testifying to their usefulness.

They are of a number of simple shapes, designed for holding a large quantity of water, and are made of a strong glass of suitable quality.

They were designed some years ago by Miss Jekyll, who, feeling the need of flower glasses of large water capacity and moderate price, consulted with this well-known firm. Meeting her wishes with courteous alacrity, they shortly produced this range of useful glasses, in several shapes and many sizes. We have heard of the glasses being supplied in large quantities to charity bazaars in London and the country, where they meet with a ready sale.

THE ROSE GARDEN.

THE "BEST" ROSE.

DEAN HOLE wrote in his book about Roses that if he were sentenced to possess but a single Rose tree he would desire to be supplied with a strong plant of Gloire de Dijon. That was many years ago, since when, of course, many very fine Roses have been raised. It would be interesting to know what, if he were still living, would be his opinion now. Personally I am rather inclined to favour climbing Caroline Testout.

Richmond, Surrey.

W. P.

CONRAD F. MEYER ROSE.

THE hardiness and early blooming qualities of this Rose are each year more visible. Well established bushes flower freely with the Lilacs in the open garden, earlier even than the Rugosas, from which it derives its hardiness and vigour. No English garden should be without this fragrant and delightful Rose.

E. H. W.

ROSE NIPHETOS OUTDOORS.

IN a Berkshire garden I recently saw Niphetos flowering well on a wall facing east. It is true that the wall was that of a Melon house, where a high temperature was maintained throughout the spring months, but even then, I think, it is rather remarkable to find this Rose flowering freely in a position in the month of May.

E. M.

PRIZE ESSAY ON ROSES.

I.—Name the best twelve distinct Hybrid Tea or Hybrid Perpetual Roses for garden decoration, taking into consideration freedom and length of flowering, and hardiness of constitution. Two distinct Roses of each of the six following colours must be selected: White, flesh, yellow or cream, pink, cherry or light red, and scarlet or dark red. Exclude new Roses of 1904-5.

White: Frau Karl Druschki, H.P.; Bessie Brown, H.T. *Flesh:* Viscountess Folkestone, H.T.; Killarney, H.T. *Yellow or cream:* Gustave Regis, H.T.; Kaiserin Augusta Victoria, H.T. *Pink:* La France, H.T.; Mrs. John Laing, H.P. *Cherry or light red:* Mrs. W. J. Grant, H.T.; Ulrich Brunner, H.P. *Scarlet or dark red:* General Jacqueminot, H.P.; Grüss an Teplitz, H.T.

II.—A hedge of Roses is required to form a protection against the north-east wind in a very exposed position. Name the Rose you would select for this purpose, and state method of planting, pruning for first year, and number of plants required to the 10-foot run; when fully grown the hedge should be about 3 feet 6 inches high. The protective quality of the hedge will be the first consideration; freedom of flower and decorative quality the second.

The most suitable Rose for a hedge 3 feet 6 inches high in an exposed position is Stanwell Perpetual. The ground should be marked out 3 feet in width, double trenched, and well manured with cow manure if on light soil, and stable manure if on heavy, and a 4½-inch pot of half-inch bones per square yard thrown in the lowest spit. Eight plants to the 10-foot run will

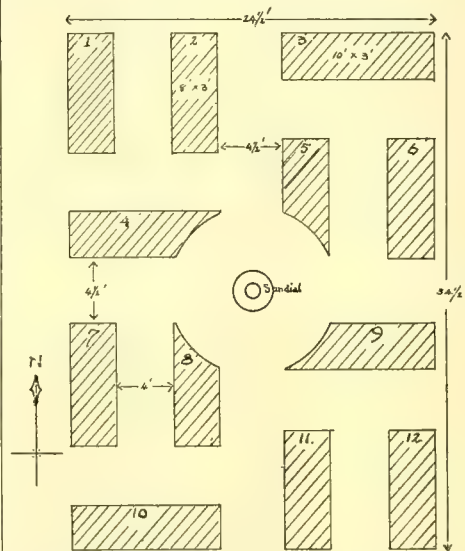
be required, set in a double row, 2½ feet from each other, and alternating with those in the second row, the two rows being 1 foot apart. Thus:

* * * * *

They should be planted in the autumn, and cut back the first week in the following April to within 8 inches of the ground. The ground should be constantly stirred with a Dutch hoe throughout the summer. It is advisable to have the Roses on their own roots, as suckers are difficult both to detect and remove when the plants are growing thickly.

III.—Give the names of six Roses, rapid climbers, best adapted for climbing into old trees, and state method of planting and pruning for first year.

1, Alister Stella Gray, N.; 2, Dundee Rambler, Ayrshire; 3, Ruga, Ayrshire; 4, Félicité Perpetue, evergreen; 5, Gracilis, Boursault; 6, Dawson Rose, hybrid Polyantha. For planting take out a hole on the south-west side of the old tree, making the hole at least 2 feet every way, and fill up with good soil well manured, with three 4½-inch potfuls of half-inch bones in addition. Plant firmly in autumn, nail up the



Rose Garden: These beds are on grass: This plan occupies 835 25 sq. Ft. & is set in the centre of the sunk lawn:

PLAN OF SUNK ROSE GARDEN.

(See Prize Essay for reference.)

shoots to the tree, and in the first week of April next year cut them well down, two shoots to within a couple of buds of the ground, and the others to varying heights, but none must be left more than 18 inches in length.

IV.—A sunken lawn, roughly 1,000 square feet in size, well protected from winds and midday sun, and in a generally favourable position, subsoil clayey loam, is to be converted into a Rose garden. Sketch out design of not more than twelve beds and not less than eight, leaving four grass paths—north, south, east, and west—and number beds 1, 2, 3, &c.

See the accompanying sketch plan.

V.—Name dwarf Tea Roses for said beds, one variety to each bed. Consideration must be given to contrast in colour and habit of growth of varieties; freedom of flower essential, and no tender varieties should be used.

1, G. Nabonnand; 2, Sunrise; 3, C. Mermet; 4, Mme. Lambard; 5, Hon. E. Gifford; 6, Mme. Hoste; 7, Marie van Houtte; 8, Souv. de S. A. Prince; 9, Corallina; 10, Bridesmaid; 11, Mme. Charles; 12, Jules Finger.

VI.—A similar list of Hybrid Teas and Hybrid Perpetuals, with similar conditions as the last query.

1, La France, H.T.; 2, Killarney, H.T.; 3, Mrs. W. J. Grant, H.T.; 4, Victor Hugo, H.P.;

5, Prince C. de Rohan, H.P.; 6, Frau Karl Druschki, H.P.; 7, Bessie Brown, H.T.; 8, Abel Carrière, H.P.; 9, General Jacqueminot, H.P.; 10, Mme. Abel Chatenay, H.T.; 11, Viscountess Folkestone, H.T.; 12, Mrs. John Laing, H.P.

VII.—A pergola leads from kitchen garden to above Rose garden, 80 feet long, with arches at every 8 feet. Ten distinct Roses are required (two plants to each arch). Give a list of the varieties you suggest as best for the purpose. The summer-flowering Roses may be used sparingly if thought desirable. General effect of whole when in flower must be considered.

1, Carmine Pillar and Aimée Vibert; 2, Zephirin Drouet and Reine Olga de Wurtemberg; 3, Alister Stella Gray and Rêve d'Or; 4, Grüss an Teplitz and Mme. Alf. Carrière; 5, Dorothy Perkins and Longworth Rambler.

Hilly Mead, Wimbledon.

M. AGAR.

[The answer to the first question is excellent. We should have chosen Rugosa Blanc Double de Coubert as the hedge Rose. With reference to the third answer, it should be noted that some protection is required from the old roots of the trees, and the plants must not be planted too closely. In the answer to question five we should have substituted Mme. Jean Dupuy for Catherine Mermet and White Maman Cochet for Bridesmaid, as these two are bad growers. In the answer to question six, instead of the varieties Victor Hugo, Bessie Brown, and Abel Carrière, we should have put Antoine Rivoire, Grand Duc de Luxembourg, and Grüss an Teplitz. As to the note giving ten climbing Roses for pergola, we might point out that excellent varieties omitted are climbing Caroline Testout, Jersey Beauty, Ard's Rover, and Ard's Pillar.—Ed.]

WORK AMONG THE ROSES.

In my notes of the 17th ult. an error is made in referring to a Rose named Baldwin as being superior to Liberty. The name should have read "Richmond," a variety raised by an American nurseryman.

A Most Destructive Pest to the Rose grower is that species of sawfly which appears rather late in the season. The female deposits its egg in the top of the strongest shoot she can find that has not already formed a bud. The grub when hatched bores straight down into the pith, and one can only tell it is there by the end of the shoot withering. Of course, the damage is now done. There seems to be no remedy excepting early pruning, so as to have the plants in bud before the pest appears. I have rarely noticed it upon maiden plants grown in the open fields.

Decaying Flowers should be removed with the seed-pod attached as soon as possible after their beauty has waned. Especially is this necessary with dark-coloured sorts. Frequently our best Roses, such as Charles Lefebvre, A. K. Williams, &c., will change to a horrible magenta tint if allowed to remain, and they sadly mar the beauty of the opening blossoms. Really the best thing to do is to cut back the shoot that has borne a bloom to a nice plump eye. This helps the second flowering of the free varieties considerably.

Mulching may be done if really necessary, as much to keep the flowers clean as to conserve moisture, because this latter end can be gained by frequent hoeings. If manure be used, let it be peat-moss litter from a stable or very short, old manure that has been laid up for a year or so.

Splendid Beds of Tea and Hybrid Tea Roses for autumn blooming can be had if young plants are planted at once. They should be of this season's grafting. If the buds were prepared some weeks ago this would be all the better. Keep the plants frequently watered and syringed, and the surface-soil well stirred. By September such beds would be a grand sight. Now is a good time to

Visit Rose Gardens and Nurseries, in order to gain hints for future guidance. One may learn much more this way than by going to a Rose show.

The Budding of Tea Roses should be commenced upon the standard Briars. Take the buds from greenhouse plants or from walls. Often the sap of Briars does not run very freely in August, so that early budding is advisable if buds are available.

Layering may now be carried out. This is none other than bending the shoots into a nick prepared with a flat trowel, in the same way as a Carnation layer. The layers should be "tongued." Use plenty of gritty soil about the tongued part, and water the soil now and then if required. Such layers would be the better for remaining on the parent plant until next spring twelvemonth. There are few Roses but what could be rooted from layers if the shoots could be brought down low enough. P.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

GOOD HARDY PLANTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The present season opened unfavourably for many of the spring flowers. The long spell of cold easterly winds and severe frost during the last half of May were very trying to many of the hardy spring flowers. It has been most interesting as well as instructive to watch the behaviour of many of the hardy plants. Some of which one would expect to come through the ordeal in the least satisfactory manner, did, in reality, in many instances appear to enjoy the dry, cold weather. I have never seen the Camassias do better, while the Aquilegias looked very sick indeed until the recent rains came. Speaking of Camassias, the following are the measurements of the spikes: C. Leichtlini, 5 feet; C. Cusickii, 4 feet; C. esculenta atro-purpurea, 3 feet. I think it will be agreed that this is sufficient evidence that these plants do not mind cold weather. It is surprising that so few people grow these fine, early-flowering plants. No plants could be more stately in the hardy border during May than Camassia Leichtlini and C. Cusickii. The latter is very fine indeed, its beautiful mauve or light blue starry flowers, fixed densely on a 4-foot stout stem, being most imposing. C. esculenta atro-purpurea is a vast improvement on the ordinary form, and flowers a fortnight later, which is an advantage. The colour is much better. Another splendid hardy plant which has also braved the bad weather is Linum perenne. This has also exceeded its usual height by several inches, and is a mass of lovely blue flowers. To my mind this is one of the most graceful plants to be seen in flower at the present season. Perhaps its great fault is that it is a bad wet weather plant. A storm will bring down all the flowers, but hundreds of buds are waiting to expand. One other very fine hardy bulbous plant is Scilla campanulata sibirica. I am told that this is not sufficiently known. It is a fine early-flowering plant.

Cirencester.

A.

RHUBARB HOBDA'S GIANT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—This excellent production was placed before the fruit and vegetable committee of the Royal Horticultural Society quite recently, and they, in their wisdom, thought sufficiently well of its worth to grant an award of merit. Surely it is hardly fair for a member of this same committee, apparently because he is in doubt as to its distinctness, or for some other reason, to rush into print, and evidently use his position to belittle the value of this new Rhubarb. The committee, according to "A. D.'s" own showing, acted quite in accordance with the rules laid down for their guidance in determining their

award, and his remarks cannot well be considered in any other light than a reflection on the skill and judgment of the nine good men and true who did their duty and voted. It is somewhat absurd to suggest that this new sort should be sent to Wisley for trial with others as the time necessary for the roots to get established would be lost, and delay its distribution. For the past three years the writer has seen this first-rate new Rhubarb growing in the raiser's garden, and on each succeeding occasion proof of its high quality has been forthcoming. "A. D." says that beyond "the stems being rather longer than those usually seen and probably distinct from other varieties, it had no other special merits." Not only has the Rhubarb been prepared for the writer's own table use, but others who have been privileged to partake of the same have pronounced a most flattering verdict in its favour, both as regards its distinct flavour and its freedom from coarseness. What "A. D." says regarding the colour of the stems cannot be taken seriously, as I have frequently seen them staged of an ideal colour, and have also adjudicated upon similar exhibits on other occasions.

C. A. H. N.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In THE GARDEN dated June 10 I noticed a letter written by A. Hemsley with regard to Hobday's Giant Rhubarb, which I understand is a new variety of great size. Mr. Hemsley weighed one of the stalks, which I suppose would be one of the heaviest, and it scaled 1lb. 9oz. Perhaps you will be surprised when I tell you I can beat this easily with an old variety. I pulled a stalk haphazard last week, it was 3 feet 5 inches long, and scaled 2lb. 4oz. without the leaf, which was of enormous size. I pulled one last year and it measured 3 feet 6 inches in length, 2½ inches in width, and weighed 2½lb. I believe I have plenty to-day that would weigh almost as much. It certainly would have been much larger had we had rain, but alas! we have had no rain for weeks and weeks. It has been given no water and no manure. All the weeds taken up from the garden in summer are thrown under the leaves, but nothing more is given. I have four plants,

which look like giants, and are admired by every one who sees them. I may add that I have had them twenty years, and they came out of a garden adjoining an old hall in a village not far from here, so it is no new variety. As to quality, I do not think it can be surpassed; it cooks splendidly, and makes excellent jam.

Market Place, Tadcaster. G. BEAUMONT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. Hobday writes me that he has not taken particular account of the weight of individual stalks of Rhubarb Hobday's Giant, but once when showing it a stalk was weighed and turned the scale at 3lb. 2oz. Therefore the weight I gave was far from being that of the heaviest stalk obtainable.

A. HEMSLEY.

THE PARROT'S BILL PLANT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I enclose some blooms of Clianthus puniceus, and a photograph of the plant from which they were taken. The latter was put in as a rooted cutting just three years ago. It now covers a space of 7 feet 6 inches by 10 feet 6 inches. It is on a south wall. The shrub on the right is a Ceanothus, I do not know which variety. I enclose some sprigs of it, and would be obliged by your naming it for me.

Minehead, Somerset.

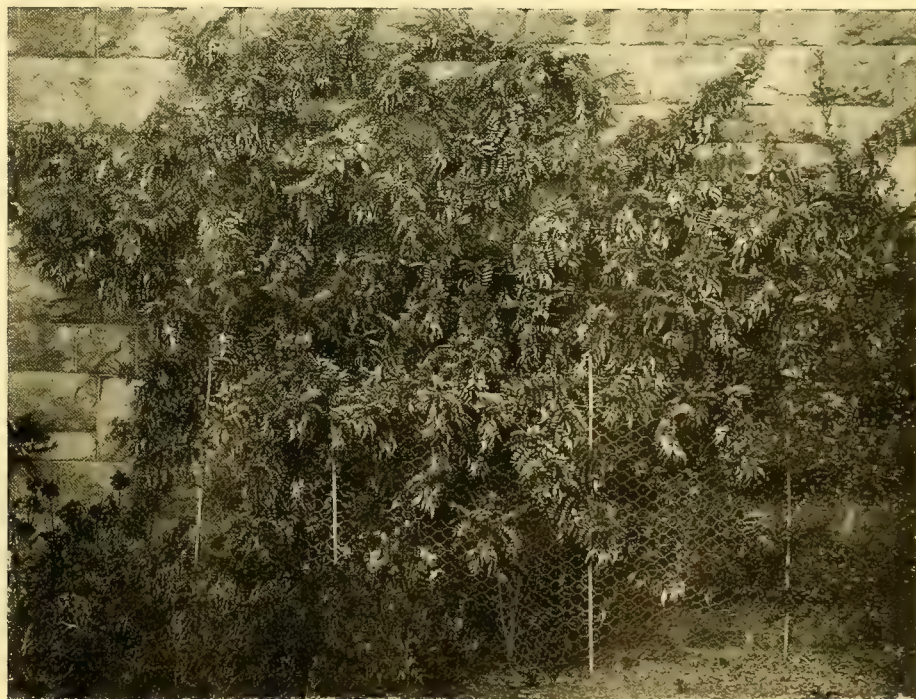
H. MOORE.

[C. azureus.—ED.]

ANNULAR INCISION OF THE VINE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Any matter likely to assist Grape growers to improve the size of their berries, if not that of the bunch, is always read with interest, if not put into practice. We are reminded on page 316 that by annular incision the former most desirable end can be obtained, and we are invited to follow the successful practice of the French gardeners. Few English growers, we think, will be able to refute all that "P. H." says in favour of the practice, because very few indeed, we think, have given it a trial hitherto, but may now be led to do so. On the surface it appears



THE PARROT'S BILL (CLIANTHUS PUNICEUS) ON A WALL AT MINEHEAD, SOMERSET.



A SMALL LILY POND AND CAVE ROCK GARDEN.

an unnatural process, and while allowing for any good that may result from it in the increase in the size of berry, it may have, we would suppose, an opposite effect, which would prove detrimental to the succeeding crop. "P. H." in his remarks says: "The elaborated sap descends by means of an outer layer of tissue, and, therefore, when this is removed by annular incision it can descend no farther." This, of course, would be the result; but then by cutting off the flow and deposits of sap in this way, how are the two or three wood-buds below the incision to receive their share of nourishment? It is the aim of all Grape growers to have the basal buds on the current season's growth as plump and as matured as possible in autumn; but on the surface annular incision would not assist in gaining this desirable end. What do others think?

RICHARD PARKER.

A RHODODENDRON EXHIBITION.

In the Royal Botanic Society's Gardens at Regent's Park, Messrs. John Waterer and Sons, Limited, annually throughout the month of June exhibit a collection of Rhododendrons from their nurseries at Bagshot. They are arranged in beds and borders on undulating ground, and form a charming garden of Rhododendrons.

POT MIGNONETTE.

AMONG the many spring-flowering plants, few, I suppose, are more admired than a well-grown pot of Giant Mignonette. It does not require half the attention that many less worthy plants do. Mignonette being quite hardy, it will not stand coddling, so that anyone possessing ever so small a greenhouse of any description, or even a frame or two, may keep up a succession nearly all the year round. My plan is to sow thinly in 3-inch pots about the second week in August, and place the pots on a hard piece of ground covered with ashes. Cover them with hand-lights, water with a fine rose can, and keep close and shaded until the seedlings appear, when air must be freely admitted. They must be shaded during the

hottest part of the day, and very carefully watered at this stage, or the young seedlings will damp off wholesale. When large enough to handle, thin out to four, or at most five, of the strongest. When these have made 2 inches or 3 inches of growth, pinch out the points, which will cause them to break. Shift them when well rooted into 6½-inch pots, and place in a cold frame on an ash bottom close to the glass, giving at all times plenty of air. The potting compost should consist of fibrous loam three parts to one part each of old decayed cow manure and leaf-mould rubbed through a sieve, and a plentiful supply of old

plaster or mortar rubble well broken up and mixed in the soil; some of the larger portions of this may also be used for crocking the pots, Mignonette being very partial to it. Firm potting is at all times essential to induce short-jointed growth; it may, in fact, be rammed quite hard. The plants should be supported in good time with neat, straight sticks, placing one to each plant to prevent their falling about, and to keep them upright. As soon as the flower-spikes begin to show they may be removed to where it is intended to flower them, and weak liquid manure should be given once or twice a week. Mignonette is sometimes sown in the same pots in which it is to flower, being thinned out afterwards. This, of course, saves time and labour, but better results are obtained by the repotting method. As regards varieties to grow for pots, there are now so many good ones it is needless to particularise, Machet and any of the Giant strains being suitable. A. D. A.

Ham Manor, Sussex.

THE FLOWER GARDEN.

SMALL LILY POND AND CAVE ROCKERY.

THE accompanying photograph most faithfully represents a small shallow cemented tank, with the adjoining rockery and cave, in my garden. Perhaps too faithfully, for it shows how few plants were in bloom at the time, either in the water or on *terra firma*.

None of the water plants were out, a small free-flowering pink *Nymphaea*, Arrow-heads single and double, *Villarsia*, and *Myosotis palustris* all coming a bit later, while on shore in the bog *Trilliums*, *Mertensia virginica*, and *Primula rosea* were just over, the only attractions being the double Meadow saxifrage and a few small bright-coloured *Azaleas*. On the rockery *Aubrietias* were gay enough, also a white *Potentilla*, and there were one or two nice overhanging bits of *Lithospermum prostratum* dotted



RHODODENDRONS IN THE ROYAL BOTANIC SOCIETY'S GARDENS, REGENT'S PARK.

(Arranged and planted by Messrs. John Waterer and Sons, Limited, Bagshot.)

all over with their blue flowers, but they unfortunately did not quite come into the picture.

The thing which excited most admiration just then was undoubtedly a solitary gold-fish in the pond, a very bright, handsome one. Needless to say we could not persuade him to sit (or swim) for his portrait, and he hid himself away in a dark corner of the cave while the photographer was at work.

Formerly I grew the lovely Bog Bean (*Menyanthes*) in the little pond, but had reluctantly to do away with it, for it wanted the whole of the tiny place to itself, and grew at an enormous pace.

The great objection to small shallow tanks or ponds like this one is of course their liability to become choked with weeds in warm weather, especially with that horrid slimy seaweedy kind which is so common. I am glad to say I think the American plan of destroying this nuisance with copper sulphate (blue vitriol) seems likely to be successful.

A few grains of the sulphate were dissolved in a gallon of water, and the surface of the small pond was watered with this solution through a fine rose some weeks ago; the slimy horror has disappeared, and the water seems to be keeping clear, though perhaps rather dark in colour. Possibly a second dose may have to be given later on.

None of the other plants nor the gold-fish were harmed by the solution, and I have tried it since in my two other small ponds. The remedy is so simple and so cheap that it is well worth a series of trials if only for the extermination of this noxious weed. In America experiments on a very large scale have been conducted in the reservoirs, with apparent success, the infinitesimal amount of the sulphate in no way affecting the purity and wholesome nature of drinking water.

Yalding, Kent. [S. G. REID.

NEW AND RARE PLANTS.

CATTLEYA THE BARON.

THIS *Cattleya* is a variety of *Cattleya Schroderæ*, and was named in compliment to Baron Sir Henry Schröder,

Bart., who possesses one of the finest collections of Orchids in the country. It was exhibited by Messrs. Sander and Sons, St. Albans, at the Temple Show.

It was generally admitted to be the finest new Orchid shown. As may be seen from the illustration the flower was of excellent form. It was white throughout sepals and petals; in fact, the only colouring was in the lip. At the base the shade of colour was almost violet, while towards the throat it changed to orange suffused with rose. There were many other fine *Cattleyas* in Messrs. Sander's group of Orchids at the Temple Show. The varieties of *Odontoglossum crispum*, too, comprised some of the most beautiful extant. *Dendrobium thyrsiflorum* was splendidly shown, one plant bearing some fifteen racemes.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, W.C.



CATTLEYA SCHRODERÆ THE BARON. (Reduced.)

(Admitted to be the finest Orchid exhibited at the Temple Show.

MAGNOLIA HYPOLEUCA, BUDDLEIA COLVILLEI, AND OLEARIA FOSTERI.

We have received from Mr. B. E. C. Chambers flowers of the beautiful and powerfully fragrant *Magnolia hypoleuca*, which is conspicuous for its large creamy-white segments and strawberry-coloured centre, with darker base; one of the noblest of its race. The *Buddleia* is very charming, its rosy purple flowers being produced in profusion; a shrub for every garden. Mr. Chambers sends the following note: "A few flowers for the 'Editor's Table,' viz., *Magnolia hypoleuca*, which I cut from a tree I had from Yokohama twenty-one years ago. It has never flowered before, and has produced twenty-five flowers. *Buddleia Colvillei* was gathered from a shrub

12 feet high and as much through; it is flowering more profusely than ever before. *Olearia Fosteri* is certainly one of the most delicate and graceful of the tribe, and seems thoroughly hardy here. The formation is the lower greensward, which at this height (600 feet) seems especially favourable to half-hardy plants."

INCARVILLEA DELAVAYI.

From Adderley Rectory, Market Drayton, Mrs. Winser kindly sends flowers of this handsome plant. Mr. J. Maddocks, the gardener, sends the following note: "This *Incarvillea* is now flowering for the first time here. There are as many as four spikes on one plant. The flowers were exposed to 6° of frost three weeks ago as they were just commencing to open. They did not seem to suffer in the least. The soil is a strong loam, the subsoil clay. The plants were raised from seed, sown in heat. A number of the plants perished from excessive wet during the winter of 1903-4, otherwise they appear to be perfectly hardy."

A ROSE FROM ITALY.

From Milan Mr. Ettore Berti sends a new Rose called *Italia*, which he describes as a sport, well fixed, from *La France de '89*. It is a large flower of deep rose colouring, and very fragrant.

MARECHAL NIEL ROSES.

A splendid gathering of this unique Rose has been sent to us by Mr. W. Richardson, The Gardens, Marks Hall, Coggeshall, Essex. They were gathered from a tree on a west wall in the kitchen garden. Mr. Richardson says they have had some very fine Roses, but the wind and rain have spoilt most of them. Rose *Maréchal Niel* does very well out of doors at Marks Hall.

HARDY FLOWERS FROM IRELAND.

From The Mall, Armagh, Mr. J. McWatters sends a beautiful and varied lot of flowers with this note: "I send for your table a few blooms cut from seedling plants of the double or semi-double *Meconopsis cambrica*. I raise many plants every year, and have had a brilliant show for some time past. I also send some blooms of *Philadelphus tormentosus*, a very pretty shrub. Of *Polygonum baldshuanicum* I send a few sprays. This climber has made rampant growth here, and seems likely to extend further still, to the menace of neighbouring plants which share a very choice corner of a wall facing south. The *Heucheras* enclosed are almost all seedlings raised here. The Golden Elder, which I enclose, I find very useful for arranging with cut flowers."

ABUTILON VITIFOLIUM.

We are reminded of the beauty of this *Abutilon* by a few flowers sent by Mr. Alfred Walker, Ulcombe Place, near Maidstone, with the following note: "I send flowers of *Abutilon vitifolium*, which is in great beauty here. The shrub, or rather small tree, from which they were cut has been out in the open border, quite unprotected, during the last four winters. It is 10 feet high. The shrub is a native of Chili."

GARDENING FOR BEGINNERS.

SIMPLE HINTS

SEEDS TO SOW NOW.—The gardener must always be looking forward, if he is to be successful with flowers, and for a bright display next year seeds of some things should be sown now.

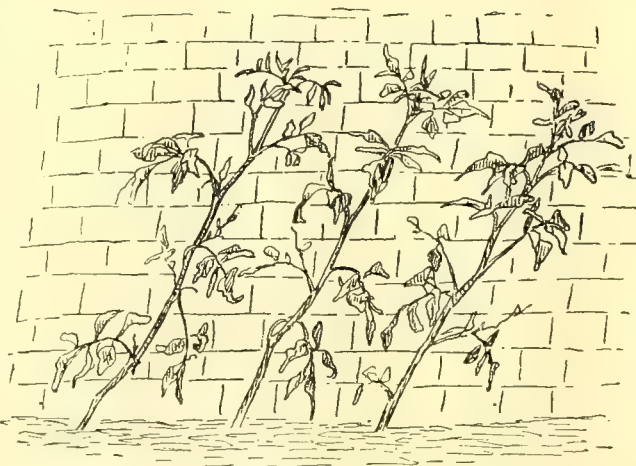
Among these are Canterbury Bells, Wallflowers, Pinks, Aubrietias, Foxgloves, Forget-me-nots, Carnations—to mention just a few popular garden flowers. It is much more interesting, and often more satisfactory, to raise these plants from seed now than to buy plants in the autumn or spring. It is much cheaper in the first place, and there is a good deal of interesting anticipation in the work too, for one never knows what a packet of seeds will bring forth. The seed should be sown in boxes, placing these in a shady portion of the garden, on a bed of ashes or on bricks, if they are out of doors. An old garden frame is a very suitable place in which to put them. When the seedlings are large enough to handle they may be transplanted to a border, there to remain throughout the summer, until in fact they are planted out in their permanent positions in the autumn. The soil should be well worked with the spade and fork, and if some old Mushroom bed manure or leaf-soil can be mixed with it so much the better. The seedling plants will then grow all the more satisfactorily. Give each plant plenty of room; if they are crowded they will never develop properly.

Thrift.—To my mind there is no more attractive edging for a border than Thrift, especially if it is associated with Pinks. Both flower at the same time, and they make a delightful picture in red and white, while the Pinks supply the fragrance. The common Thrift (*Armeria vulgaris*) is, I think, more satisfactory than the one now often planted (*A. lauchiana*). It seems to grow and flower more freely, although the blooms of the latter are a deeper colour. Thrift soon develops, and in the course of a year or two the tufts spread and make a perfect evergreen carpet, beautiful even in midwinter.

Something about Pinks.—June is the month of Pinks, and very sweet and beautiful they are, both in the garden and in the flower-bowl in the room. Their propagation from cuttings or layers is easy and simple. The usual plan is to propagate Carnations by layers and Pinks by pipings or cuttings. Take off the cuttings when the growth is getting firm. Strip off the leaves from the lower end, shorten the tops, and insert under hand-glasses in sandy soil. Place the propagating bed in a rather shady spot, sprinkle every bright day, and keep close except for about an hour every morning, and pretty well all the cuttings will root. As regards varieties everybody should grow at least half-a-dozen. The enthusiast may have a large collection—hybridise and raise new varieties for which there is still room. The following are good among others: Her Majesty, Lord Lyons, Ascot, Newmarket, Mrs. Pettifer, and Lady Blanche. The laced Pinks of the florist and the old-fashioned Carnations are disappearing, which, I think, will not be for long. They are too interesting and beautiful to disappear altogether. Both are lovely for cutting. Probably the unnatural way of exhibiting the flowers in paper collars and the necessity of dressing the flowers have had something to do with their loss of caste. A flower

which depends for its success on a paper collar and the art of the dresser must give way, but neither paper collars nor dressing are essential in the eyes of the flower lover.

White Everlasting Peas.—The flowers of these are much more lasting than the Sweet Peas; the latter out of water soon fade, and this detracts from their usefulness for bouquet work. Perhaps some day we may get the fragrance of the Sweet Pea in the Everlasting, and possibly more variety in colour. The Everlasting Peas are easily raised from seeds, though it takes some time to develop a strong flowering plant from a seed; two, or at the most three, years will accomplish it. To work up stock from root cuttings or dividing old plants is rather a slow process; and seedlings cannot always be relied upon to come true to colour. Several years ago we raised a batch of seedlings from seed saved



TOMATO PLANTS TRAINED OBLIQUELY AGAINST WALL.

(Planted 18 inches apart. Slightly bending the plants promotes earlier fruiting.)

from a fine clump of the white variety, and about 10 per cent. had coloured flowers, though in all the seedlings the flowers were as fine as the parent. We had no red variety on the place, but the pollen might have been brought by bees from a neighbouring garden. They thrive against the stems of standard Apples or Thorns, and may be trained over an arch or formed into clumps, supported by a few sticks in the border. Under all conditions they are effective and last some time, long enough, in fact, where other things are coming on in succession.

Brompton and Intermediate Stocks.—The Brompton are the old-fashioned Stocks which used to be so common in cottage gardens, and are still found in country gardens. Seeds sown thinly now, and transplanted where they are to flower during the autumn, will flower freely and fill the garden with fragrance next spring and early summer. The East Lothian Stocks are good varieties of the Intermediate, and are not quite so hardy as the Brompton, though if sown thinly in firm ground and kept sturdy in habit they generally survive the winter in the open air, though it is wise to pot up a few plants and keep in a cold frame during winter. A few may be potted on to flower in the greenhouse in 6-inch pots. The flowers are very sweet, and are nice for cutting. There is not so much variety in colour as in the Ten-week Stocks; but the whites and scarlets are good.

Watering Palms in Rooms.—It is impossible to give a hard and fast rule as to the watering of Palms in rooms, because so much depends upon the temperature of the room, the size of plant and pot. If the Palm is in a small pot and the soil is full of roots it may need water every day in hot weather; in dull weather, perhaps twice a week only; and in winter once a week, or not so often. After some observation it is easy to tell from the appearance of the soil whether water is wanted or not. If it seems fairly dry give it water; if it is moist, wait a little longer. A certain way of finding out whether the soil is dry or not is to lift the Palm with the hand and notice whether it feels light or heavy; if the former then water is needed, if the latter then none is required. You may also rap the pot sharply with the knuckles; if a hollow ringing sound results then give water, if the sound is dull and heavy the soil still contains moisture.

A Good Room Palm is *Latania borbonica*, whose broad fan-shaped leaves are very handsome. It will withstand a good deal of rough treatment; it is not so sensitive to cold as the more graceful *Kentia*, and is therefore more suitable as a room plant. It is often better to keep this Palm in a fairly small pot than to place it in a large one. If the soil is not well filled with roots it is liable to become sour and sodden, unless water is given very carefully, whereas when the Palm is in a small pot, and the roots have thoroughly permeated the soil, the latter soon dries, and it is very unlikely to suffer from over watering. Palms in rooms usually suffer more through having too much than not enough water. A slight sprinkling of guano should be given to room plants in small pots occasionally, otherwise the leaves are liable to turn yellow through lack of nourishment.

Repotting Palms.—If the Palm, after repotting, can be placed in a hot, moist house for some days, so as to give the roots a good start in the fresh soil, then the latter may be cut back a good deal without any harm being done. If, however, one has no such convenience the roots must not be too hardily dealt with. Place the Palm in a size larger pot than it was before, so that there will be room for a little fresh soil all around and beneath the roots. If the latter protrude through the base of the original pot they may be cut off. It is astonishing how well a plant will grow and how long it will remain in good health when in quite a small pot, especially, as I mentioned, if it is given an occasional sprinkling of guano. Palms do not like the sun; keep them away from a sunny window, otherwise they will lose the rich glossy green that makes their leafage so much admired; keep them out of draughts also.

Tomatoes against a Wall.—No one needs to be told that Tomatoes can be grown well against a wall outdoors, for it is no uncommon sight to see them covering a low wall in many a garden. A few cultural hints, however, may not be without value. The ordinary garden soil is good enough as a rule for Tomatoes planted against a wall, but if it is unusually poor some well-decayed manure must be dug in. It is now, however, too late to do this if it was not done at planting time, so the only thing to do is to give a mulch of manure on the surface. This is especially valuable in hot weather; it keeps the roots cool and moist, and

reduces the necessity for continuous artificial watering, which tends to lower the temperature of the soil and make it sour. Eighteen inches apart is a suitable distance at which to put out the plants; they must be nailed to the wall with shreds just as fruit trees are. Pinch out all side growths, and when three bunches of fruit have "set" pinch out the top of the plant; it is no use allowing more fruits to form, for it is seldom that they will ripen. Some growers believe that if the plants are planted obliquely against the wall they will fruit earlier; at any rate, the experiment is worth trying. In order to make sure of having a good crop one should fertilise the flowers; this is easily done by holding the flower in the left hand, the thumb immediately beneath it, and by means of a penknife held in the right hand open the flower, and with the blade cause the pollen to fall on the thumb of the left hand, then with the pollen thus obtained touch the end of each of the other flowers.

Tomatoes in the Open.—These should be planted out in well dug and fairly good land (not too heavily manured or the plants grow vigorously but do not flower freely) in rows 3 feet apart. As to pinching out the side shoots, stopping when three bunches of fruit are formed, mulching, and watering well in hot weather, the remarks in the preceding paragraph still apply. The great thing in growing Tomatoes in the open is to have good strong plants for planting out as soon as danger from frost is practically over, they then grow away quickly and soon produce flowers. Unless the fruit is produced early in the summer it does not ripen properly, and Tomatoes ripened after being cut from the plants are flavourless.

Giving Stimulants to Growing Plants. This is interesting work for the experimentalist. In showery weather it may be done by sprinkling artificial manures of suitable character alongside the rows of plants, hoeing it in immediately. In giving artificials to Potatoes scatter the manure along each side of the rows and mould up immediately. In dry weather liquid manure will be more effective, one ounce to the gallon being the maximum quantity allowed. Very often a mixture of manures will be more effective than one alone, but Clay's Fertilizer, Bull's Plant Food, and canary guano may be used as they come to hand, changing about occasionally. Those who have plenty of yard manure may use it at this season as a mulch on the surface round the plants. This method feeds the plants, and at the same time checks the escape of moisture from the soil.

Plant out Leeks.—Those who grow exhibition Leeks sow seeds under glass, where there is a little warmth, in February. Harden off when ready, and plant in trenches prepared somewhat like Celery trenches, only the rows need not be so far apart nor yet quite so deep. Room is required for earthing up, so that a good length of blanched succulent stem may be obtained. The rows should be 2 feet apart and the plants 9 inches apart in the rows. The bed system may be adopted with Leeks where land is scarce, as is sometimes done with Celery. A wide trench is prepared and manured, and the plants set out across the trench instead of lengthways. We have had very good Leeks in this way. In earthing up Leeks the soil need not be pressed very firm round the stems, as they grow faster when some liberty is allowed. Old Leek growers, when the leaves are rapidly developing, generally take off the ends of the flags or leaves to give tone to the stems.

Propagating the Strawberry by Seed.—It may be thought this had better be left in the hands

of the specialist, but the raising of seedlings is interesting and the work is easily carried out, and in a small way one does not have long to wait for results. If we take a large well-developed fruit when perfectly ripe, peel off a thin slice from the outside so as to remove all the seeds, leave it on a sheet of paper in the sunshine where nothing can disturb it for a few hours till the pulp dries up and the seeds can be collected, they may be sown at once. If express methods are employed and the plants helped on in pots for a time some, if not all, the plants may fruit the next season. Good culture will do this easily, and quite a number of varieties may be obtained from the seeds of one fruit if the fruiting plants are grown where bees and other insects can fertilise the blossoms. The work is interesting, and in the hands of beginners something may grow out of it.

The Best White Climbing Rose is generally admitted to be *Mme. Alfred Carrière*. It grows vigorously, and bears freely of its large white flowers, which are delightfully fragrant. Perhaps this Rose is seen at its best when allowed to climb into old trees. An orchard of worn-out Apple or other fruit trees might easily be transformed into a Rose garden of much beauty by planting some of the vigorous climbing Roses, and *Mme. Alfred Carrière* should be well repre-



TOMATOES ON A BORDER IN THE OPEN.

(Planted in rows 3 feet apart, 18 inches apart in the rows. Side shoots have been pinched out. Stakes 4 feet long.)

sented. It is not a summer-flowering Rose alone, but it blooms during the autumn also, and thus has an added value that makes its presence indispensable in every garden. For profusion of flowers at one time, for a mass of snow-white blossom, the bunch-flowered *Aimée Vibert* is hard to beat. It makes a glorious show in summer, but flowers hardly at all in the autumn. Bennett's Seedling is another similar Rose, whose shoots become wreathed with white flowers in summer.

GARDENING OF THE WEEK.

FLOWER GARDEN.

GENERAL REMARKS.—The general "bedding out" should by now be completed, and its attendant litter cleared away. Carefully examine all plants recently put out as to their condition in regard to moisture at the roots; if dry, water thoroughly, and even those in a moist state will be benefited by frequent sprinklings overhead during bright weather until they are fairly well rooted into the fresh soil. Where heavy and frequent waterings have been necessary, it will be beneficial to go over the ground among the plants with a stick to stir the surface soil and break the crust, afterwards mulching with Coconut

fibre or decayed leaf-mould. Peg down *Phlox Drummondii* and similar plants. Where Bracken is plentiful, it provides neat serviceable pegs for the purpose, which are easily and quickly made. Stake neatly, but securely, plants of upright growth needing support; many are brittle, and if timely attention is not given them they are apt to snap in a storm or get twisted about, becoming unsightly and sprawling, and often spoiling their near neighbours.

CARPET BEDS must be kept in perfect trim, lines kept within their proper limits, and the design strictly adhered to, groundwork plants and edgings pinched, clipped, or pegged down as the nature of the various subjects suggests. Pick all flowers off plants where the foliage effect only is the aim, and keep dot plants erect and evenly balanced. Heavy-headed subtropical and other plants must be firmly staked, those of rapid growth necessitating frequent tying to their supports as growth advances.

STAKING is an important item at present in the borders: many tall-growing herbaceous plants must be supported to prevent being broken off, and so will plants and annuals that were utilised in filling up blank spaces. Lilliums, *Gladiolus*, *Galtonias*, and other bulbous plants must also be seen to in this respect. Endeavour to stake all in as natural a manner as possible. Display as little of the supports as is practicable, and, above all, avoid bunching them up. Attend to

CLIMBERS frequently to prevent the young growths becoming entangled or the strong shoots getting broken, and thin out weak spray where too thick. If the lawns show signs of exhaustion, apply a suitable and quick-acting fertiliser during showery weather. If the grass verges of beds have been worn down in the course of planting, cut into shape with the edging-iron, keeping lines and curves perfectly true. The same remarks apply to edges of walks. Apply weed-killer to the latter where not already done, and weeds appear; it is most effectively applied when the walks are fairly moist, with the prospect of a few dry days to follow.

HUMEA ELEGANS may now be sown in mild heat. I am well aware from experience how disheartening it is to see apparently healthy plants mysteriously dying off when on the point of coming into bloom, and regretfully admit I know of no cure, still it is a plant we can ill afford to lose from the flower garden.

J. ROBERTS.

The Gardens, Tan-y-bwlch, North Wales.

INDOOR GARDEN.

CHRYSANTHEMUMS.—The final potting is by this time almost finished. In many gardens Chrysanthemums occupy the same summer position year after year. It is necessary in the event of high winds to fix strong stakes or posts at intervals along the rows, and stretch wire or cord from stake to stake, to which the Chrysanthemum stakes may be secured. This can be either of a permanent character in the case of wire, or fixed up each year when required. If a piece of ground cannot be set apart for the plants, a very suitable place for them is on either side of a wide garden path. Arrange the varieties in sections—i.e., the large flowered together, the bush varieties together, late flowering, and so on. Syringe the plants before leaving work at night after hot days. Dust with Tobacco powder if aphids makes its appearance, when the shoots are damp in the evening, syringing it off the next morning. Look over the plants for water three times at least each day.

HEATHS.—These plants may be placed outside about this date or in cold frames where the lights can be left off, except when the weather is wet. If placed outside it is better to half plunge the pots in coal ashes or some other suitable material; an alternative is to place each pot in another a size larger. Either of these methods tends to keep the roots cool and economise the watering. Give the plants plenty of room; should much wet weather be experienced, lay the plants on their sides to prevent the soil becoming sodden.

BEGONIAS.—Encourage the growth of *Gloire de Lorraine* and varieties. Pot on as required, pick off all flower-buds. A house or pit with a warm moist atmosphere is the most suitable place in which to grow them. Much better permanently in this season if the house is shaded permanently with thin tiffany or stippling, over which a blind can be let down during the brightest part of the day. The tall-growing varieties *B. coccinea* and *B. President Carnot* will need tying occasionally. If well rooted, manure water is very beneficial. Other varieties, such as *B. knowsleyana* and *B. Corbelle de Feu*, must have a little stimulant to keep them flowering. Pot on the seedling semperflorens varieties for flowering in August.

GENERAL REMARKS.—Cut back climbers in the greenhouse after flowering, such as *Cestrum* and *Streptosolen Jamesoni*. On these growth made and ripened this year is the best for flowering next. Pinch off all the runners as they appear on the Violets growing for frames. Mulch with short manure; a sprinkling of soot is also beneficial during a shower of rain. Place *Clivias* in a cooler house, and later on out of doors. Pot *Euphorbia pulcherrima* as soon as the cuttings are well rooted. Keep close for a few days. Stake and tie Lilliums, as the growths lengthen give liquid manure. The early batch of *Cyclamen* are rooting in the new soil, and can be transferred to a cold frame whenever convenient. Sow a few seeds of *Primula sinensis* for a late batch; also *Rhodantea Manglesi* and *Mignonne* for autumn flowering. Pot on

the earliest Cinerarias and sow more seeds for smaller plants and later flowering. The earliest *Salvia splendens* plants are rooting freely in the flowering pots, so can be placed in the open air. Pot on the larger *Streptocarpus* seedlings for flowering in autumn.

Royal Botanic Gardens, Kew.

A. OSBORN.

FRUIT GARDEN.

EARLY VINES.—When the Grapes are cleared from the early house there are several little matters which require immediate attention. The roots should be thoroughly soaked with clear water, and the foliage well washed with a syringe every afternoon. Should red spider be present, syringe the foliage two or three times in succession with a solution of soft soap and sulphur. Remove all lateral growth, throw the house wide open, and let the wood have every facility to get well ripened by the end of the season. If the Vines are affected with mealy bug it should be kept in check by scrubbing the rods with strong soft soapy water, repeating the operation at intervals of a month. The time will soon be at hand for renovating the Vines in early houses which are giving unsatisfactory results. If there are borders both inside and out, no fear need be entertained for next year's crop, provided the work is carried out in a methodical and expeditious manner. On the contrary, a very marked improvement will be noticed. Where the Vines have only inside borders, much greater care will be necessary in handling the roots. It would also be advisable not to force them, and very lightly crop them. With borders both inside and out, the inside borders should be dealt with first, leaving the outside ones till next season. Begin by digging a trench at the outside of the border about 2 feet wide. Then gradually fork out the soil towards the Vines until a good body of roots can be found. Take care not to damage any large main roots. The small ones may be cut well back. Before adding the new soil, the drainage must be examined, and see that it is quite clear. Sufficient loam should be at hand and in good workable condition; also plenty of old mortar rubble, broken bricks, and wood ashes. Bentley's Vine Border Compound may be added, but the quantity must be determined by the nature of the soil. The roots must be carefully laid in as the work proceeds. About 3 feet of new soil will be sufficient for two or three years.

EARLY PEACH TREES.—As soon as the fruit is gathered from the early trees, all the old fruiting wood should be cut out except where it is needed for extension or filling up gaps. Gross shoots should also be removed, but take care to leave sufficient to replace them, or there will be unsightly blanks next season. Next year's fruiting wood should be loosened from the trellis, so that light and air can have free play to ripen it. Give the trees a good soaking with clear water, also well wash the foliage every afternoon with the hose-pipe or garden engine to keep them clean. If they are badly affected with red spider, syringe them two or three times with an insecticide. It is essential to retain the foliage in a healthy condition as long as possible.

LATE TREES.—Old trees carrying full crops of fruit will need copious supplies of stimulants now that they have passed the stoning process. Apply a good dressing of rich farmyard manure, and thoroughly wash it in at once. The fruits may now be raised up to the glass to receive the full benefit of light and warmth. Keep laterals pinched, and remove any growths not required for furnishing the tree. Thoroughly drench the trees morning and afternoon with the syringe, and frequently damp the walls and paths. Unless it is desired to hasten on the ripening of the fruits, the ventilators should be open day and night.

E. HARRISS.

Royal Gardens, Windsor.

KITCHEN GARDEN.

MUSTARD AND CRESS.—In the preparation of salads Mustard and Cress are important ingredients, and especially during warm weather ample daily supplies must be forthcoming. These may easily be obtained with the aid of hand-glasses during summer. Choose a shady spot, under Black Currant bushes answers well. Both Mustard and Cress succeed best in a rich loamy mould, which should first be well forked up, then firmly trodden. Make the surface level and fine with the rake. Thoroughly moisten the soil before sowing the seed, which distribute rather thickly but evenly all over the surface. Water must be given in dry weather, as a sufficiency of moisture induces quick vegetation. Have the covers of the hand-lights shaded inside with a lime wash brush, then place in position, and a fine sprouting of Mustard and Cress will soon make its appearance.

BEETROOT. if not already thinned, must be attended to without delay; leave the plants about 12 inches apart, removing all weeds as the thinning proceeds. When these and the thinnings have been cleared off, let the whole Beetroot plot be Dutch hoed, taking great care that the hoe does not come into contact with the young

Beetroot plants, as both roots and foliage are very easily damaged.

FRENCH BEANS need attention in the way of hoeing and staking. It is advisable that French Beans should be supported with twigs; by this means there is freer admission of air to the plants, the pods are kept clean, and gathering operations facilitated. All pods should be gathered as soon as fit to use, as seed production greatly checks the growth. Examine successional sowings to ascertain if they are in need of thinning or have gaps to be made good; this can be accomplished by carefully transplanting a few from parts already too thick.

CELERY.—Planting out Celery should now be finished; plants put out after this date seldom do much good, being only fit for flavouring purposes. Former plantations must be kept well supplied with water. If the surface soil round the young plants has become caked, it ought to be slightly broken up with a small Dutch hoe before the water is applied. To early plants which have become established and are growing, rather weak doses of liquid manure may be given twice a week, the strength of the liquid manure to increase as the plants get stronger.

LEeks, for early or show purposes, may be treated the same as Celery. Those growing in trenches require copious waterings, and liquid manure afterwards. When the blanching process begins, it is a good plan to place 3-inch drain pipes on end between the Leek plants. When liquid manure is poured into these drain pipes it finds easy access to the roots, although deeply buried in the trench.

J. JEFFREY.

The Gardens, St. Mary's Isle, Kirkcudbright.

ORCHIDS.

PLANTS IN THE EAST INDIAN HOUSE should now receive generous treatment in every respect, and it is important that an equable temperature be kept up during the season of growth. Although the nights may become warmer, fire-heat ought not to be dispensed with altogether. Enough should be used to maintain a temperature of 75° up to midnight, and when banking up the fires, say, at ten o'clock, the dampers should be manipulated so that the thermometer will be about 70° in the early morning. If practicable a small chink of air should be left on at the apex of the roof. This will assist the circulation of the atmosphere, and help to clear out much of the moisture that accumulates after sunset. A cool, damp, stagnant atmosphere at night should be avoided, as it will often cause the tender foliage of *Dendrobiums*, *Phalaenopsis*, and *Calanthes* to become spotted. The house should be closed early in the afternoon, and the blinds pulled up as soon as is possible without causing injury to the plants, the temperature being raised by sun-heat to between 85° and 90°, or even higher when the sun is very bright. When the ventilators are closed give the floors, stages, and especially under the hot-water pipes, a thorough watering, and damp well between the pots. Give the *Dendrobiums* a good syringing under the leaves so as to keep the foliage clean and free from red spider and other insect pests. All the other Orchids in this division delight in having a slight dewing overhead with a fine sprayer on warm, sunny afternoons, but not so heavy as to cause the water to run down in the axils of the leaves, or much harm may

be done. Syringing or spraying overhead ought not to be afforded in dull, wet weather, or damping of the foliage of some tender and valuable plants may take place. Where a large and varied collection of Orchids is grown in this house it is sometimes difficult to attend to the requirements of each separate species as regards shading, &c., but a little selection simplifies matters considerably. Such species as

DENDROBIUMS, *Catacetsums*, *Cycnoches*, *Mormodes*, *Schomburgkias*, *Vanda hookeriana*, *V. Miss Joaquim*, *Rensanthera coccinea*, *R. Storei*, *Scuticarias*, *Brassavolas*, *Erias*, and *Laelia rubescens (acuminata)* should be placed in light positions, while *Cypripediums*, *Phalaenopsis*, *Angraecums*, *Aerides*, *Phaius*, *Bulbophyllums*, *Cirrhopetalums*, *Megacaliniums*, and the warm-growing *Ceologyne*s prefer the shady side. The deciduous *Calanthes* require only moderate shade when the plants are in full growth and have filled their pots with roots. The

CATLEYA and intermediate houses should now be freely ventilated. It is not advisable to shut up all the ventilators early in the afternoon in order to increase the temperatures by sun-heat. So long as the external air is above 50° the bottom ventilators should be wide open; if it is likely to continue mild they may be left open all night. Both houses at Burford are span-roofed, and run north and south, the roof glass being lightly stippled over. The blinds on the east side are drawn up soon after 2 p.m., and those on the west side about four o'clock. The top ventilators are then closed, leaving the lower ones wide open. With clear glass it is not safe to remove the shadings nearly so soon. Sufficient fire-heat should be used to keep the temperature 65° all night. In the *Catleya* house plants of *Laelia purpurata* that have just gone out of flower should be kept at rest as long as is possible. Place the plants in a cool, airy position in the same compartment, or perhaps, better still, a similar position in the intermediate house will suit them. Plants of this species that commence to grow too early in the season seldom produce growths that are satisfactory, while those that form during the autumn and early winter months are invariably the most floriferous.

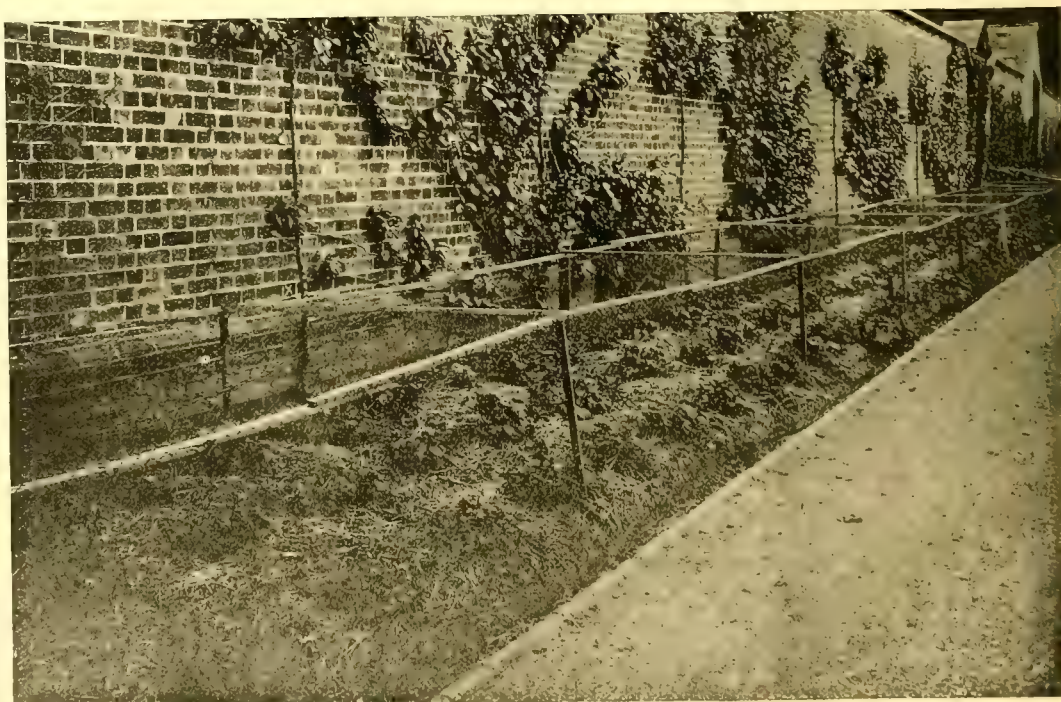
Burford Gardens, Dorking.

W. H. WHITE.

THE FRUIT GARDEN.

PROTECTING STRAWBERRIES.

A MATTER of importance to all fruit growers at this time of the year is the safe protection of Strawberries from birds. There are various methods in vogue, but for general usefulness and convenience few, I think, are as good as the one shown in the accompanying illustration. Simply by means of a few strong square stakes placed at intervals along the back and front of the border, and



A GOOD METHOD OF PROTECTING STRAWBERRIES.

connected with laths fixed parallel with and at right angles to the walk, an effectual and cheap framework is secured. All that remains to be done is to cover it with netting. It is an easy matter to remove the netting for gathering the fruits; it needs only to be lifted up and thrown back upon the framework. This method of protection is useful, not only in summer time to prevent the attacks of birds, but it is equally so in spring when the plants are in flower, and for that reason it should be erected before the blooms open. A double thickness of ordinary fish netting will keep off several degrees of frost, but, in order to be on the safe side, it is better to cover the framework with canvas. This should be rolled down every evening while the plants are in bloom, and pulled up the first thing in the morning. The common way of protecting Strawberry fruits—namely, by means of netting thrown directly upon the plants—leaves much to be desired. It is not very effectual, for the birds often damage the fruits through the net, and some are certain to be within their reach. It is also inconvenient to uncover the beds for the purpose of gathering the fruits. The net gets caught in the leaves, and sometimes in the fruits, with the result that they are damaged or destroyed. T.

FORCED STRAWBERRIES AND NEW STOCK.

I HAVE never known a better season for forced Strawberries than the present, though I am not inclined to place our success to the weather so much as to last autumn, when the plants were prepared. The autumn of 1903 was one of the worst I ever experienced for Strawberry culture, that is for pot plants. For whole weeks during September and October the plants were laid down to prevent the soil becoming soddened, with the result that the following spring the plants produced poor puny spikes, and, of course, a poor crop. Last season I adopted another plan; at least, the work was begun in 1903. I secured new stock from the raiser, as Royal Sovereign has now been out some years and our plants were weak.

We planted on prepared land to get early runners last summer, and with splendid results. Not only shall we benefit by the forced plants, but by the permanent ones also, as we plant a good number yearly for large fruit. I am aware the soil differs greatly in many gardens. Ours is a thin one on gravel, and we never leave plants, even those grown for the supply of preserving fruits, longer than two seasons. This shows how quickly such soil must affect a good stock. In more suitable soils it would not be noticed so quickly, but even then the results obtained soon repay for cost and labour entailed. For many years we have relied largely upon young plants for dessert fruits, as we need a large supply and the introduction of new stock after a few seasons works wonders.

Of course the above work is very simple. It means the destruction of old stock and introducing new blood. It is not always an easy matter, but it may be done piecemeal, and the new stock the first year is kept for the forcing plants. I am aware it is not necessary in all gardens, but one often sees signs of weakness after a few years even when the best culture is given. In the case of forced plants the flowers are so much stronger, and the plants grow so freely. I think few fruits are more readily affected by inferior culture and want of stamina than the Strawberry. This season fruits from forced plants have been equal in size and flavour to those from the open. This is a point that should not be overlooked. The old system of growing in hot, steamy houses is almost obsolete. The plants are on shelves or stages close to the glass, with plenty of ventilation, the result being that the fruits are little inferior in quality to those in the open ground. I think we have also in Royal Sovereign one of the best when forced as described. G. WYTHES.

LEGAL POINTS.

DOORS AND GATES OPENING OUTWARD UPON WALKS OR FOOTPATHS (J. T. Winthston).—The Local Authority in an Urban District can require these to be altered at the owner's expense on eight days' notice. Penalty, in case of neglect, not exceeding 40s.

BOUNDARIES (O.).—The question is one of fact. If the fence has been erected on your land you can remove it, notwithstanding that it was erected with the consent of your predecessor in title. If your neighbour wished to retain the fence permanently, he should have obtained a proper legal grant authorising him to do so. If the fence had been in existence for twelve years your neighbour might have claimed to retain it.

TREATMENT OF A GARDENER (H. S.).—It is not customary for an employer to insist upon his gardener working in "a drenching rain." In wet weather a gardener usually works in the greenhouses or potting sheds. We think that an employer who insisted upon his gardener working in "a drenching rain" would be acting unreasonably, and that in the absence of special circumstances the employer would not be entitled to summarily dismiss the gardener because he refused to do so. Of course, he could give him notice. Happily most people who have a good gardener do not desire to kill him off by undue exposure to inclement weather.

HEDGES AND DITCHES (H. M. D.).—When two fields are separated by an artificial hedge or bank, and an artificial ditch, the general rule is that the hedge or bank and the ditch belong to the person whose property is behind the hedge or bank. If there be a hedge or bank with ditches on each side of it, then the presumption is that one of the ditches belongs to each owner; but there is no presumption as to the ownership of the hedge or bank, and the question must be determined by reference to Acts of ownership. The same observation applies where there is a hedge or bank with no ditch on either side.

AGRICULTURAL LEASES (P. C.).—Agricultural leases usually contain provisions as to the manner in which the land is to be cultivated. Such covenants cannot be enforced by an action for specific performance, but if the lessee commits a breach of the covenants the lessor may, after due notice, take legal proceedings to eject him, or may bring an action for damages against him for breach of covenant. In the absence of express provisions to the contrary the lessee of agricultural land must cultivate it according to the custom of the country where it is situated.

TRESPASS AND DAMAGE (Freehold).—Your neighbour is wrong. His cow has committed an act of trespass by damaging your fence and eating your trees. The owner of the cow is liable to make good the damage, and you can sue him for the amount. You are under no obligation to fence against his cattle. It is his duty to take sufficient means to prevent his cattle from trespassing on your land. See answer to "N. S." We assume that there is no contract or prescriptive right which imposes an obligation on the owner of your land to erect and maintain fences. To make sure you had better look at your title deeds.

ERECTION AND REPAIR OF FENCES (N. S.).—As a general rule the owner of land is under no obligation to erect fences for the purpose of dividing it from the adjoining land, nor is he under any obligation to repair fences. He must, however, take sufficient precautions by erecting fences or otherwise for the purpose of preventing his cattle from straying on to his neighbour's land. An obligation to erect and maintain fences may arise by prescription or express agreement between the parties, or it may be created by Act of Parliament, as in the case of the inclosure of

commons or land held by railway companies. An obligation to repair by prescription arises when one of the owners can prove that he has had the right for at least twenty years to compel the adjoining owner to repair, e.g., if he can prove that he and his predecessors have been in the habit of giving the adjoining owner notice to repair, and that he has without protest complied with such notice. In calculating the period of twenty years the time during which the owner of the adjoining land has been an infant under twenty-one or an idiot or insane must be excluded. After forty years' enjoyment the right becomes absolute, but the period during which the land of the adjoining owner has been in the possession of a tenant or tenants for life, or for a term exceeding three years from the date of the lease or other deed creating it, must be excluded in making the computation.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 6, Southampton Street, Strand, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

Legal Points.—We are prepared to answer questions of law which have anything to do with the subject of gardening and forestry. The questions should be as clear and explicit as possible, so that there can be no doubt as to the point of the question. Answers will be found in a separate column headed "Legal Points."

DISEASED TOMATO (T. J. P.).—Your Tomato fruits are affected with a disease commonly known as black spot. The moment this spot is seen on the green fruits, and it is almost always on the lower side of the fruit, they should be gathered and destroyed. The disease is of fungoid form, and it most probably first attacks the flowers, and through them the spores enter the swelling fruits, and eating into the skin and flesh cause black spots, very much as the Potato disease does in leaves and tubers. You state "the house is kept up to a temperature of 70° in the day and 60° at night, also the floor is kept very damp." These are just the conditions to promote a disease of this kind. Really you should keep the floor and the atmosphere of the house as dry as possible, simply watering the plants occasionally; also the plants should have plenty of air. Not only attend to this advice, but also mix some sulphur with clay and soft soap into a paste, then with a brush coat the pipes well once a week. Shut the house up close for twelve hours after.

HOW TO RAISE DAFFODILS FROM SEED (Serotinus).—As far as we know neither *Narcissus serotinus* nor *N. elegans* has yet been used as a parent in cross-breeding. The various species of *Narcissus* hybridise so freely that you may succeed in crossing *Grandee* and *Cynosure* with *N. serotinus*, provided that the retarded bulbs of the former can be got out in bloom at the same time, though we consider the experiment a very difficult one. *Barri conspicuus* seldom if ever seeds, and is therefore of no use for this purpose. Neither are we quite sure as to where the beauty and usefulness of an autumn flowering race of large flowered Daffodils would come in. These autumnal flowering species of *Narcissi* are almost impossible of cultivation in the open in this country, as none of them flower

before October, hence they are usually killed down by frost before they have finished flowering. Naturally your experiment to be successful will have to be conducted in a greenhouse from which frost is excluded, and even then we are doubtful as to whether you will be able to ripen any seed should cross-fertilisation take place. At the best the experiment would be rather a forlorn one, and, as you say that you have no greenhouse, we scarcely think that it is worth attempting. As regards *N. cyclamineus*, hybridists have not been at all successful with this species, probably because it is not well fitted for culture outdoors in this country, and its offspring are delicate. Mrs. R. O. Backhouse succeeded in raising a remarkably beautiful flower from a cross between *N. cyclamineus* and *N. obvallaris*. This gained an award of merit from the Royal Horticultural Society Narcissus Committee on March 27, 1900, but has since been lost. The plan which the late Mr. Leeds used to follow in raising Daffodil seedlings was to gather the pod with a piece of stalk attached just before it was ready to burst. He then used to fix the stalk upright in a pot of earth previously prepared, place it in a cold frame and allow the seeds to be shed naturally into the pot. He always made it a practice to allow the seeds to remain on the top of the soil for a month in order to harden them, and then lightly covered them with soil. For our own part we sow the seeds almost as soon as they are ripe in shallow boxes or pans. The soil should be a mixture of light loam and sharp sand in about equal proportions. In order to secure perfect drainage it is best to put a layer of peat or half-rotten turf at the bottom. Do not cover the seeds too deep, a little less than half an inch suffices, as the little bulbs work themselves down to their proper depth in a remarkable way. At the end of two years most people plant out the seedlings in the open ground, but we should certainly not do this in the case of seedlings raised from such uncertain parents as *N. cyclamineus*, *N. serotinus*, and *N. elegans*. These would be best grown entirely in a frame until they flowered and enough stock was obtained to test their hardiness. As a rule Daffodil seed germinates in an irregular manner throughout the winter, but we have never known the seed lie dormant and come up the second year, as is the case with the seed of some bulbous plants. We should recommend you to obtain the Rev. S. E. Bourne's "Book of the Daffodil," published by John Lane, and also to procure a copy of THE GARDEN for July 18, 1903, in which appears an interesting letter upon the subject of the cross-fertilisation of Daffodils.

ROSE CUTTINGS (Mrs. Clarke).—About the end of September or in the month of October is the best time to insert cuttings of Roses, as their growth is then practically complete, and the shoots are fairly firm. A very successful plan which has been often recommended is to take an ordinary garden frame, stand it on a hard bottom, and in it place a compost made up of loam, leaf-mould, and sand in equal proportions. This must be thoroughly incorporated together, and when placed in position and pressed down firmly should be about 6 inches deep. It must then be watered and allowed to stand a few days before inserting the cuttings. These should be taken from shoots which have borne the first crop of Roses of the year, as they will then be in the half-ripened condition required. They must not be cut from the plant, but stripped off with a slight heel. The cuttings should be about 4 inches in length, and prepared in the following manner: Take off all the leaves except the two or three upper ones, and these will soon drop. Then dibble the cuttings in very firmly, particularly at the base, and bury them for three parts of their length, that is to say, leave only about an inch above the surface of the soil. A space of 4 inches or thereabouts between the cuttings is a very suitable one. The frame

must be kept close, giving only a little air occasionally for a short time, in order to dry up superabundant moisture. If the winter is severe give a little protection, as the action of frost will lift the cuttings and prevent their rooting. By the latter part of April or early in May they may be lifted, potted, and returned to the frame, gradually hardening them off till they may be stood out of doors, and in August planted out permanently. With no frame available the cuttings may be planted in a sheltered border at the foot of a wall, but as a rule the same amount of success will not be obtained as when protected by a frame.

ROSE OVER WALNUT TREE (Miss Hampson).—From your description we believe the variety to be *Ruga*, one of the best of the *Rosa arvensis* or Ayrshire Roses. It is, as you say, a lovely Rose, of a delicate shell pink colour, and it produces fruits abundantly. *Ruga* is an old variety, supposed to be of Italian origin, having apparently the Tea blood in its nature, although possessing the hardiness of the Ayrshire Roses. Given a good root run there might be more of the clambering Roses planted against trees, and most lovely objects they are when well developed.

PLUM TREE (*C. L.*).—Those of the side shoots not required for covering the wall or extending the tree should be pinched back. They ought to have been stopped before they grew so long. It is usual when they are about 10 inches long to shorten them to half their length and to keep the resulting side shoots pinched back to two leaves. However, now that yours have grown so much it would be unwise to shorten them so severely, this would be too serious a check to a tree in full growth. Cut them back half their length, and say in a month's time again shorten them by half. At the winter pruning these shoots must be cut back to within three or four buds of the base. They will then in due course form fruit spurs. If the leading shoots are as long as the side shoots cut say 3 inches or 4 inches from each, and at the winter pruning cut one-third away. Yes, it would be advisable to train in a few young shoots to form branches eventually, so that they may take the place of the worn-out ones.

CATERPILLARS ON APPLE (*J. Balden*).—There were no caterpillars in the leaves of the Apple shoot when they reached us. Some caterpillars which roll up leaves have a tiresome knack of dropping out of the leaves when alarmed. It is therefore quite impossible for us to name them, but we quite expect that they are the caterpillars of one of the bell moths, which belong to the family Tortricidæ. It is of little use sponging the trees with any insecticide, as it is almost impossible to make it reach them. The caterpillars may be killed by pinching the leaves so as to kill them, taking care that they do not fall out before the finger and thumb close on them, or by cutting off the folded leaves so that they may fall into a basket or box. Shaking the branches might cause some to drop out of their shelters, to which they will hang by a thread. They may then be caught and destroyed, anyhow they are difficult pests to deal with.

PEACH FRUITS FALLING (*R. Hutchinson*).—To all appearances the young Peach fruits sent are quite healthy, and we believe some cultural item is responsible for their falling off. Probably you have kept a too high temperature while the fruits were stoning. This is a fertile cause of their falling off. The stoning period of Peaches is a critical time, and they need a cool atmosphere then. Hard firing while the stones are forming would be liable to make them fall, and even a high temperature obtained by sun-heat. Another thing that would make them fall is dryness at the roots, but this we should imagine you would take care did not happen. There can hardly be anything wrong with the border, for both the leaves and fruits sent appeared perfectly healthy. We feel sure the culture is at fault in

some particular, and that you will most likely find one or another or both the above-mentioned evils to be responsible.

BLAIRII No. 2 WITH GREEN CENTRES (Mrs. Insole).—The extra large buds of this old Rose, which you enclosed, had, in our opinion, been grown much too strongly, which circumstance is responsible for these distorted flowers. Sometimes spring frosts are the cause of this trouble; but we think there has been given too much manure, artificial or natural, and it would be advisable to give no more now. You cannot do much just now, except removing these green centre buds. Perhaps some of the side buds of each truss could be thinned out.

PERGOLA (*The Manor House*).—A good proportion would be 8 feet between the pairs of stone piers across the path, and 8 feet to 9 feet between them in the length, not counting their thickness. Square piers are always satisfactory; they should be 14 inches to 18 inches square, and stand 7 feet 4 inches out of the ground.

DISEASED LILIES (*M. L. M.*).—The leaves of your Lilies are attacked by a fungus—I believe by a *Botrytis*—but as it is not in a spore-bearing condition I cannot say for certain. I should pick off as many of the diseased leaves as possible and burn them, and then spray the plants with Bordeaux Mixture. If any of them are very badly attacked I should cut them down and burn them at once. Look out for the disease next year, and as soon as you see any signs of it treat at once as recommended.—G. S. S.

STRAWBERRIES UNSATISFACTORY (*S. McClements*).—The most likely cause for the unsatisfactory condition of your Strawberries, as far as we can gather from the appearance of the fruit, is an attack of mildew, or red spider, or it may be that the berries have been scorched by exposure to too hot sun, without sufficient leaf protection.

HOLLYHOCK (*B. B.*).—If you want really fine blooms for the exhibition table, you should cut off the side shoots, thin out the spikes, leaving not more than one or two to each plant. Thin the flower-buds if crowded, and pinch the top out of the spike. By doing the latter you increase the size of the flower, although this tends to shorten its duration. If, however, you only require your Hollyhocks for the garden borders, and each plant has plenty of room, leave the side shoots alone. If your space is limited, pinch out the side shoots and keep them to the one central stem. You get finer flowers if you do this, but more if you let the side shoots remain.

TRAINING SWEET PEAS (Mrs. Sanders).—You can hardly do better than use ordinary Pea sticks. Put short twiggy pieces around and among the plants first, and then in a week or two put in the ordinary Pea sticks. These are usually bare and thick at the base, and the slender growths do not cling to them well. Once they get a start on the twigs, however, they gain strength, and then take hold of the Pea sticks proper. Nothing looks so attractive as the common twiggy Pea sticks, preferably of Hazel wood, which is full of twigs. You may get the Bamboo canes and place them round the tubs, tying string around the canes at intervals, or you may use wire netting if you prefer.

PLANTS FOR WALLS (*W. R. Pickett*).—If your wall is a hot one try the lovely Fortune's Yellow Rose, the Banksian Rose, *Rêve d'Or*, *Maréchal Niel*, or *Claire Jacquier*. Any of these ought to do there, though they might require protection during a very cold winter, as they are only really hardy in the more favoured parts of the country. If the wall is warm all the year round, however, you would probably have no difficulty in growing any of them. Try Fortune's Yellow for preference. You would find the variegated creeping *Euonymus* (*E. radicans variegata*), *Periwinkle*, *St. John's Wort* (*Hypericum*), or *Ivy* as suitable as anything for the other position.

TOMATO BLOOMS FALLING (*F. C. B.*).—Dryness at the root and a high temperature are two fertile causes of the flowers of Tomato plants falling. Probably one or the other, or both of these may be the cause in your case. You say the house is span-roofed, gets sun all day, and fire-heat to the middle of April. A high night temperature when the plants are in flower might prove injurious, or if sufficient air were not given during hot days that, too, might cause the flowers to fall. Plenty of fresh air (when not cold) is essential to a good "set" of fruit. It is advisable even to leave some air on during the night if the nights are warm. Any approach to dryness at the root is fatal, and will quickly cause the flowers to fall. We are afraid that your plants must have suffered in one of these ways.

WEEDY CROQUET LAWN (*Stamford*).—The weedy nature of your lawn and its spongy texture are due less to the character of the soil than to the composition of the turf; coarse weeds have coarse roots, and these give a spongy character to the turf. To extract all these coarse weeds would need considerable and patient labour, and even then the Clover could not be got rid of. That and weeds are deeper rooted than grass, hence they can hold on in the driest weather. You would not care to face the expense, perhaps, requisite if all the present turf were lifted, the soil rammed rather firmer than it now is, some fine soil top-dressed over it, and quite new clean turf laid. Failing that, you may in October fork out thoroughly clean all grass and weeds, well harden the soil, top-dress with an inch thickness of fine soil, then sow a good lawn mixture of seed from a seedsman. The only other course is to have all weeds extracted, then give a dressing, 3lb. to the rod, of basic slag, and an occasional heavy dressing of soot to wash in, keeping the mower in constant use.—D.

MILDEWED VINE LEAVES (*J. J. D.*).—That your Vine is affected with a mildew there can be no doubt, one leaf shows the mould quite white on the under side, whilst the other leaves speckled brown and withering evidence the harm the mildew has already done. The disease resembles what is known as the American mildew, as that chiefly affects the under sides of the leaves. Like the common Vine mildew (*Oidium Tuckeri*), it is chiefly a product of cold chills, through improper ventilation, or of the Vine roots being in deep, poor, or sour soil, where they fail to find healthy food. In any case do not expose the Vine to cold currents of air, ventilate chiefly at the top of the house. If you have no heating pipes, dust a pail of slaked lime with sulphur to form sulphur vapour, shutting the house up close for a couple of hours in the evening. Repeat that practice once or twice at intervals of ten days. Damping the Vine and heavily dusting it with sulphur is a good practice, but it makes the Vine very dirty.—D.

FUCHSIAS IN POTS (*Mrs. Clarke*).—Nothing is said as to the conditions under which the Fuchsias are grown, hence we cannot advise on that point, and can only give general cultural directions. Presumably your plants have been kept over from last winter, during which season they should have been placed in the greenhouse and given sufficient water to keep the soil slightly moist but no more. Many keep them in the winter under stages and in such like places; but they are liable to drip and other troubles, which are very apt to injure the weaker growers. By March the plants will show signs of putting forth new shoots, when they must be gone over and trimmed into whatever shape it is desired they shall assume. Then directly they recover from this pruning is a good time to repot the plants, a suitable compost being two parts good friable loam to one part each of leaf-mould, decayed cow manure, and nearly a part of sand, the whole being well incorporated together. After potting a good watering is necessary at first, though particular care must be taken not to give too much

afterwards, at all events, until they are in active growth; an occasional dewing with the syringe is very beneficial. As the plants develop and the pots get full of roots a dose of weak liquid manure once a fortnight will be of great assistance. In the greenhouse Fuchsias do not require any special conditions, their principal need being a free circulation of air, not too dry an atmosphere, and a slight shade from the full rays of the summer's sun. In common with many other natives of the Andean region of South America (the home of the original Fuchsias) these plants are not benefited by a hot, dry summer, as cooler weather and more atmospheric moisture suit them best. This can be plainly seen if they are bedded out, for should the month—or the first part of the month of August—be hot and dry, they present a more or less unhappy appearance; but directly the nights get colder, and the leaves are in the morning bathed with dew, they pick up in a surprising manner. While the above refers to established plants young ones struck from cuttings in the spring will—if shifted on when necessary—be now in pots $5\frac{1}{2}$ inches to 6 inches in diameter. In these, particularly in the last-named size, they will flower well the first season. Fuchsias are often grown as large standards or pyramids, in which case, for the production of standards, all the side branches should be picked off till the required height is attained; and for pyramids the object is, while encouraging a central leading shoot, so to regulate the side branches as to obtain as symmetrical a specimen as possible.

DISEASED POTATO GROWTH (*C. J. K.*).—Whilst it is difficult to determine whether the plant sent is injured by grubs eating the stems below the soil, or that the harm was due to other similar cause, there is most reason to believe that it is a product of latent disease in the planted tubers, as these may be affected with the spores of fungus disease, yet not visible when planted, and only seen when growth has reached a certain stage. That the injury to the plant begins in the stems below the soil is evident from the sample sent, the top growth being strong and healthy up to a certain stage. We have no reason to assume that the disease differs materially from that with which we have long been familiar, but simply shows itself in a new character, known, as you term it, "stem rot." As the origin must have been in the set planted, it seems as if no external application could furnish a remedy. It may be wise at once to destroy every affected plant.

CARNATION INJURED (*No name*).—The plant is quite healthy, and has been eaten through near the surface of the ground. It is not wireworm, as this eats upwards. It would be best to take a lamp out at night and watch for the depredators.

GRAPE FOR NAME (*W. Birrell*).—The Grape you send is most probably Lady Downe's, judging by the shape of the green berries you send. With only a small part of an unripe bunch to go by we are unable to say more definitely. If you will send berries when they are ripe, or send a characteristic bunch now telling us the colour of the ripe fruit, we can say definitely.

MOVING RHODODENDRONS (*Rema*).—From the dense character of their fine fibrous roots Rhododendrons can be moved with as little check as most plants, and even if your specimens have been planted ten years there will be little risk in moving them. The latter half of October and the month of November is a very suitable time to move your plants, as the season's growth is then completed, and there is ample time for them to become established before the harsh drying winds of March begin, which are very trying to newly-planted evergreens. In replanting a very good plan is to form a saucer-like depression around the stem of each plant, as this allows of a thorough soaking of water if necessary. This must be carefully attended to, as if the roots of a newly-planted Rhododendron are allowed to get too dry the results may be disastrous.

VINE LEAVES DISEASED (*T. H.*).—We are glad to know that our diagnosis of the cause of the spot on the Vine leaves is endorsed by our correspondent's experience, and we hope that by adopting the practice of leaving a little heat in the pipes at night and a little air as well during the early stages of the Vine's growth he will be free from this trouble in future.

TUBEROUS BEGONIAS (*J. Pullin*).—During the growing season these need a reasonable amount of water, that is to say they should be watered about the same as Fuchsias, Geraniums, and similar subjects. As autumn advances, and the plants show signs of going to rest, the supply of water must be lessened, and when quite dormant discontinued altogether.

CUTTING BACK IVY ON HOUSE (*Rema*).—The best time to cut back Ivy is in early spring, as soon as possible after the severe weather is past, as then the young shoots are quickly pushed out, and the plants are bare for only a very short time. Where buildings are covered with Ivy which it is desired to keep as neat as possible, the practice of cutting off all the old leaves in early spring is often carried out, as by so doing a fresh and even surface of clean foliage is ensured.

NECTARINE LORD NAPIER CRACKING (*G. A. B.*).—Some Nectarines are subject to cracking, notably Victoria, Cardinal, and more or less the variety you mention, Lord Napier. The sample of Nectarines sent are perfectly healthy, well formed, with stones fully developed, so that there is no disease whatever in the fruit, and we can see no reason with careful and intelligent cultivation why the fruit should crack in the way it has. We can only suggest the following reason, that the trees are very robust in health, and carrying too light a crop. If this is so, next year let them carry a much heavier one, and we do not think you will be troubled with many more cracked fruits. If there are many more fruits on the trees which are not cracked, admit more air into the house night and day, with less moisture in the atmosphere, and not too much water at the root, of course not allowing the soil to become too dry, and we hope those which are left may be saved.

GRUBS ON CARNATIONS (*K. B. W.*).—The grubs that are injuring your Carnations are those of the common daddy-long-legs or crane fly (*Tipula cleareacea*). They are very difficult to destroy, as no insecticides have any effect on them unless applied of such a strength that the plants would be injured. They are commonly known by the name of leather jackets, on account of their soft but tough skins. It is astonishing what a great vitality they possess; neither heat, cold, drought, nor moisture appears to have any effect on them. They may be frozen until quite hard, and yet when thawed seem none the worse. They may often be caught by laying pieces of slate, tile, turf, or board on the ground near where they are at work, as they are fond of sheltering under such things. The traps should be lifted every morning and then replaced. Woodlice may also often be found under them; they should also be destroyed. The grubs may also be caught by burying slices of Turnips, Mangolds, Potatoes, or Parsnips just below the surface of the soil. These should be examined daily. A good deal of trouble may be saved in handling and finding these baits if a small wooden skewer be stuck into each. The parent daddy-long-legs should never be spared when there is a chance of killing them.—G. S. S.

DISEASED CUCUMBER LEAVES (*Cucumber*).—Unfortunately, your plants have contracted the deadly Cucumber disease, a fungus commonly called the Cucumber spot. It is fearfully destructive, and so far no effectual remedy is publicly known for its destruction or prevention. The best thing you can do is to have the affected leaves cut off and at once burnt. Keep the house drier (the moister the house is the faster the disease spreads), and more airy in the hope of

keeping the plants in bearing as long as possible. Syringe the house and plants with a solution of potassium sulphide, 2oz to 3 gallons of water, adding 2oz. of soft soap. Jeyes' fluid should also be occasionally dredged over the paths. This will not kill the disease, but it will help the plants to bear fruit for a longer time than if nothing had been done. We would advise sowing new seed at once to replace the diseased plants, which in any case cannot last in profit for long. Every particle of the old soil should be taken out of the house and burnt before it is used again, and the house or houses thoroughly disinfected by burning sulphur two or three times before planting again. It might be better to plant a crop of Tomatoes instead of Cucumbers if you have the plants handy, as the disease is not so likely to attack these. The man looking after diseased plants must on no account go near healthy ones, or he is bound to communicate the disease.

NAMES OF PLANTS.—*S. Hortus*.—1, *Cratægus Crus-galli* arbutifolia; 2, *C. mollis*; 3, *C. orientalis* var.; 4, *Nephrolepis rigidum*; 5, please send a better specimen.—*S. M. W.*—1, *Jasminum* species; 2, *Lantana* hybrida; 3, *Iresine Herbistii*; 4, *Stephanotis floribunda*; 5, *Anthericum Liliastrium* (St. Bruno's Lily).—*R. H.*—The Orange-ball Tree (*Buddleia globosa*). Plant it in a sheltered place, away from winds.—*C. Johnson*.—Yes, your Rose is *R. de Or.*—*Mrs. Gibson*.—*Heuchera sanguinea*.—*C. Frenchie*.—*Gaura Lindheimeri*.—*Teamside*.—1, *Belle Siebrecht*; 2, *Gustave Regis*.—*L. C. F.*—*Achimenes gloxiniflora*.—*G. W. G.*—1, *La France*; 2, one of the newer Continental varieties, but we cannot discover the name; 3, *Hermione*; 4, *Hall Caine*.—*A. K. M.*—The "Violet" plant is *Linaria pallida*, and the other is *Phlox subulata*.—*W. West*.—1, *Weigela hortensis* nivea; 2, *Spiræa Bumalda*; 3, *Cerastium arvense*; 4, *C. Biebersteinii*.—*J. Pullin*.—The flower enclosed is one of the garden varieties of *Sparaxis*, of which there are a great number in cultivation. The bulbs must on no account be lifted directly after blooming, as they have then to mature their growth for another season, but they should be watered as before till the leaves die down, and then the bulbs may be lifted, cleaned, and repotted, or planted as the case may be. The bulbs, being small, cannot be kept long out of the ground without injury, hence they should be again planted at least by the middle of September, and, if grown in pots, kept during the winter in a cool house from which frost is just excluded, but nothing more. A light, airy position is necessary in order to induce a stout, sturdy growth.

SHORT REPLIES.—*Blacklands*.—Botanically, the plants grown in gardens as *Gloxinias* belong to the genus *Sinningia* of which there are several species, and numerous hybrids have been raised between some of them and the garden varieties of *Gloxinia*. They are mostly of Continental origin, and are in the catalogues often classed as *Sinningia*. As far as we can judge by the photograph, your plant appears to be one of these. Should it, however, appear to you to be a particularly desirable form, we should certainly advise you to save the seed and raise young plants, which may probably even show an improvement on the parent.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

FLORAL COMMITTEE, JUNE 20 (continued).

THE Roses from Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, were excellent and finely displayed. The rich single-flowered maroon-crimson Maharajah was very fine, and with *Thalia*, sinica *Anemone*, *Rainbow*, *Lady Roberts*, *Una*, and others a fine display was made. Silver Flora medal.

Messrs. Wm. Bull and Sons, Chelsea, had a small group of stove ornamental plants, among which were some choice examples. Spanish and English Irises were also staged.

Mr. George Bunyard, Maidstone, Kent, had a large group of hardy flowers, *Campanulas*, *Pæonies*, double *Rockets*, *Irises*, *Eremurus*, *Larkspurs*, &c.

The *Pæonies* from Messrs. R. H. Bath, Limited, Wisbech, made a most sumptuous feast of these flowers, many of the varieties having flowers of great size and beauty. Silver-gilt Banksian medal.

A varied, rich, and telling lot of hardy flowers came from Messrs. Wallace and Co., Colchester. *Pæonies* in charming variety, *Lilies* in plenty, *Calochortus*, *Eremurus*, *Plantago maxima* (a striking plant), *Penstemons*, and *Heucheras* were among the more important. Silver Banksian medal.

Mr. J. Douglas, Bookham, Surrey, showed *Pinks* in pots—*Snowdrift*, a fine white; *Morna*, fancy, was also good. Some flag *Irises* were shown by Mr. Douglas.

The *Pæonies* and *Eremurus* from Messrs. T. S. Ware, Limited, Feltham, were a showy and good lot, rich and varied in colour, and in excellent condition.

A small group of flag *Irises* came from G. Yeld, Esq., Clifton Cottage, York, *Halo* and *Hamilcar* being note-

worthy kinds. Some seedling *Hemerocallis* were also shown.

Messrs. J. Cheal and Sons, Crawley, contributed a small group of hardy flowers, in which *Tropæolum polyphyllum* was noted.

ROYAL BOTANICAL AND HORTICULTURAL SOCIETY OF MANCHESTER.

THE grand Whitsuntide show was held in the society's gardens on the 10th to the 14th ult. This may be regarded as the occasion of their reopening after a thorough renovation. It is gratifying to horticulturists, especially those in the North, that owing to a generous but unknown benefactor these gardens are to continue their noble and interesting work of half a century. It would have meant a serious loss to the horticultural world to have had no more of the many fine exhibitions held in these gardens. A new venture has been instituted in the charge for admission, the first and following days admission being 6d. each day. Surely, this low charge for a show of such quality and extent must be unique, and it is hoped that the masses may avail themselves of such good value for their money. It is pleasing to recount that under the new order of things the subscribers have been doubled, and the payments at the gate have been satisfactory. The exhibition proved excellent in every section; the large show house and annexe were fully furnished throughout. In addition to the many well-known exhibitors, there were some seen there for the first time, and it is to be hoped that others may come forward and stage their productions.

COMPETITIVE CLASSES.

For the best collection of Orchids (amateurs), Mr. H. Holbrook, gardener to E. Ashworth, Esq., had a charming bank that secured the premier award, a silver cup.

For the best collection of Orchids in bloom (nurserymen), Messrs. J. Cypher and Sons, Cheltenham, were first, as usual.

For a collection of *Odontoglossums* (amateurs), Mr. T. Raven, gardener to A. Warburton, Esq., won with a most pleasing display.

Ten stove and greenhouse plants in bloom (nurserymen): First, Mr. James Cypher, with plants about 3 inches to 6 inches in diameter.

Best group of miscellaneous plants, 150 square feet (amateurs): First, Mr. W. B. Upjohn, gardener to the Earl of Ellesmere; second, Mr. J. Smith, gardener to James Brown, Esq., J.P.

Best group of plants, 100 square feet: First, Mr. T. Johnson, gardener to E. J. Sidebottom, Esq.; second, Mr. W. Jones, gardener to J. E. Williamson, Esq.

For the best group of miscellaneous plants, arranged for effect not less than 300 square feet (nurserymen): The first prize was won by Messrs. R. P. Ker and Sons, Liverpool, with a charming and natural arrangement. This exhibit was greatly admired. Second, Mr. J. S. Sharp, Huddersfield.

Collection of *Roses* in pots: James Brown, Esq., was first and the only exhibitor.

For eight plants suitable for dinner-table decoration the first prize-winner was Mr. W. T. Gould, gardener to Mrs. S. Wood.

Collection of not less than thirty hardy herbaceous and alpine plants (amateurs): First, Mr. Joseph Holt; second, Mr. T. Shawcross.

Collection of not less than twelve varieties: First, Mr. J. H. Thorley, gardener to Dr. Pownall.

For the best collection, not less than fifty kinds, arranged for effect (nurserymen): Messrs. Cudwell, Knutsford, were first with a very pleasing lot, well set up; second, Mr. J. Robson.

In the class for dinner-table decoration Mr. Oswald Robinson was first.

The best collection of *Carnations* was shown by Mr. J. Robson, Altrincham.

NON-COMPETITIVE EXHIBITS.

Gold Medals were awarded to Messrs. Sander for a fine display of Orchids, foliage Begonias, and *Nicotianas*; Messrs. J. Cowan and Co., Gateacre, for Orchids; Messrs. Charlesworth and Co., Bradford, for Orchids.

Silver-gilt medals to Mr. J. Robson, for Orchids; Messrs. H. D. Gooden and B. Fletcher, for herbaceous *Calceolarias*, &c.

Silver medals to Messrs. W. Artindale and Sons, Sheffield, for *Pansies*, *Violas*, and *Carnations*; Messrs. Hugh Low and Co., Enfield, for Orchids; Messrs. John Waterer and Sons, Limited, Bagshot, for *Rhododendrons*.

H. T. Pitt, Esq., exhibited the beautiful *Odontoglossum pittianum*; Mr. Stevens, gardener to W. Thompson, Esq., Stone, Staffs, staged a spike of *Odontoglossum crispum* with very many flowers. The arrangements, as usual, were ably carried out by Mr. P. Weathers, assisted by Mr. Paul.

EAST ANGLIAN HORTICULTURAL CLUB.

AT the monthly meeting of this club, held at the Shirehall Hotel, Norwich, a most interesting paper was read by Mr. H. B. Dobbie (gardener to E. J. Caley, Esq., Thorpe) upon "Insects, Injurious and Useful." Butterflies, moths, beetles, flies, and scale were the bulk of insects mentioned as pests, whilst the ladybird, ichneumon fly, &c., were mentioned as friends. He also said he knew of no plant immune from insect attacks of some kind. Mr. H. Perry, in the debate, said he had kept the *Eucalyptus* under observation inside and out, and had never seen insects on it. Mr. T. B. Field and Mr. E. Peake both spoke of the usefulness of the paper.

The exhibition tables contained some attractive floral subjects, foremost among which was a new *Pelargonium*, a cross between an Ivy-leaf and zonal, decidedly better than *Achievement*, raised by Mr. C. Hines (gardener to

Garrett Taylor, Esq., Trowse House, Norfolk). Mr. H. B. Dobbie arranged a fine collection of bearded and headless Irises, including the best varieties and the Japanese *Iris tectorum*. Hobbies, Limited, sent up from their Dereham Nurseries blooms of new *Rosea Etoile* de France and *Duchess of Portland*, also the blue *Everlasting Pea* and new Ivy-leaved *Pelargoniums* in variety. Mr. J. E. Barnes, seedman, Norwich, had four beautiful spikes of *Ornithogalum arabicum*. Mr. F. Williams (gardener to L. J. Tillet, Esq., M.P.), brought up extra good *Gloxinias*, and Mr. W. Shoemith (gardener to F. W. Harner, Esq.) had the honour of exhibiting in Norwich the first plant of *Nicotiana Sandera*.

YORK GALA.

THE famous York Gala and Flower Show was held in the Bootham Field, York, on the 21st, 22nd, and 23rd ult., and proved to be much better than its immediate predecessors. The hardy cut flowers were very fine, and, as usual, the groups of ornamental plants were one of the features of the show.

The first prize for a group of ornamental plants was won by Mr. W. Townsend, gardener to E. B. Faber, Esq., Harrogate, whose group was generally admired; Messrs. Artindale and Sons, Sheffield, were second; and Mr. Curtis, gardener to James Blacker, Esq., third. Mr. W. Vause, Leamington, was first for the smaller group of miscellaneous plants; Messrs. Simpson and Sons were second; and Mr. S. Cottam third.

As is usual at the York show, the zonal *Pelargoniums* were splendid. They make quite a brilliant show in themselves. Mr. H. Pybus won the first prize in the principal class.

In the Orchid classes Messrs. Cypher and Son, Cheltenham, were the chief prize-winners, being first for a table of Orchids, ten distinct Orchids in bloom, and second for six Orchids in bloom. Mr. Birkinshaw was first in the latter class, and also for three Orchids in bloom and for six Orchids, single specimens. *Epidendrum primatocarpum* Veitch's var. was finely shown by Mr. Cypher. Mr. J. R. Abson, Altrincham, showed some excellent *Odontoglossum crispum*, and *Lælio-Cattleya Martinetii* nobilior, sent by Mr. Birkinshaw, gained a first-class certificate.

Messrs. Cypher, Cheltenham, also won the chief prizes for specimen stove and greenhouse plants. They were first for nine, six, and three plants, showing their unique specimens. In each of these classes Mr. Vause, Leamington, was second. Messrs. Cypher also exhibited the best lot of plants with ornamental foliage, and won first prize for a greenhouse plant and stove plant, both in bloom. Lady Batiye Wightson was placed first for twelve bunches of stove or greenhouse flowers.

Hardy cut flowers were finely shown by Messrs. Harkness and Son, Bedale, who won first prize with their collection. Messrs. Gibson and Co., Bedale, were a good second, and Mr. J. D. Hutchinson was third. These groups of hardy flowers made a brilliant display. Messrs. Harkness and Son won the first prize for *Pæonies*; Mr. W. Pybus was first for twenty alpine and herbaceous plants; and Mr. J. Nicholson for alpine plants.

The chief prize in the fruit classes—that for a decorated table of ripe fruit, was won by Mr. Goodacre, Elvaston Castle Gardens, Derby, with a splendid table, gaining 116 points; Mr. Dawes, Temple Newsam Gardens, Leeds, was second with 99 points; Mr. C. E. Simpson was third. Mr. Goodacre also was first for a collection of ten dishes; second, Mr. Dawes. For six varieties of fruits, Mr. McPherson, gardener to the Earl of Lonsborough, was first; and for four varieties Mr. Easter, gardener to Lord St. Oswald. Mr. Bayley, gardener to Lord Hindlip, had the best Black Grapes; and Mr. Nichols, gardener to Lady Beaumont, the best White. The best Peaches were from Mr. Searle, gardener to the Marquis of Northampton; and the finest Nectarines from Colonel Harrison, Welton House, Brough. Mr. McPherson exhibited the best scarlet and white flesh Melons; and Mr. Easter the best green flesh.

NON-COMPETITIVE.

Gold medals were awarded to Messrs. Cutbush and Sons, Highgate; J. Backhouse and Sons, York; R. Smith and Sons, Worcester; Wallace and Co., Colchester; Kent and Brydon, Darlington; and Dixon and Sons, Hull. Other exhibitors were Messrs. Charlesworth and Co., Bradford; Walshaw, Scarborough; A. Dutton, Iver, Bucks; Webb and Sons, Worsley; Peed and Sons, Nurwood; R. H. Bath, Limited, Wisbech; Clibran and Son, Altrincham; Blackmore and Langdon, Bath; Reamsbottom and Co., Ireland; W. Artindale and Sons, Sheffield; Dobbie and Co., Rothesay; W. and J. Brown, Stamford; A. Prince, Longworth, Berks; Dicksons, Chester; Robert Sydenham, Tenby Street, Birmingham; and Wood and Sons, Wood Green, N.

First-class certificates were awarded to *Iris Neptune*, I. Prospero, and *Hemerocallis corona*, from Mr. G. Yeld, Clifton Cottage, York; to *Sophro-Lælia laeta orpeliata*, from Captain Holford; and to *Lælio-Cattleya Martinetii* nobilior from Mr. Birkinshaw.

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE monthly committee meeting of this society was held at the Royal Horticultural Hall, Vincent Square, Westminster, on the 19th ult. Mr. Charles H. Curtis presided. Six new members were elected. Four deaths were reported and certificates produced, and the amounts standing to the credit of the late members in the books of the society were directed to be paid to their nominees respectively. A lapsed member, having reached sixty years of age, was paid out as per rule. The amount of sick pay since the last meeting was £44 8s.

